

Ralph L. Cooper

Education

Teresa Dee Wall

Education

- Assoc. of Science, Chowan College, Muffresboro, NC; Business, 1970
- Certificate, Certified Professional Secretary, Secretaries International, 1990
- ORD Project Officer Course for Assistance Agreements, USEPA, 6/10-11/97
- Appropriations Law Course, US EPA, 4/99
- Appropriations Law Refresher Course, USEPA, 5/05
- Lotus 1,2,3, Lotus Approach, FileMaker Pro, Word Perfect, Freelance, Microsoft Power Point, Microsoft Word, USEPA; 1991-2007

Professional Experience

- 3/99 - Present: Program Analyst, US EPA
- 11/71 - 3/99: Secretary, US EPA

Professional Service

- Chair, Secretarial Advisory Council, FWP, 1991-1993.
- Vice-Chair, National Secretarial Advisory Council (DC), 1993.
- Chair, NHEERL Administrative Staff Committee, 1995.

Awards and Recognitions

- 2 QSI Awards, 11 Outstanding/Superior Performance Awards
 - 22 Special Act Awards
 - Secretary of the Year Award, 1995
 - 7 On-the-Spot Performance Awards
 - 3 Time-Off Awards
 - 1 Non-Monetary-Gold Awd (\$75 value)
 - 1 Non-Monetary-Bronze Awd (\$25 value)
 - North Carolina Army Reserve National Guard:
 - Army Achievement Medal (2 awards)
 - North Carolina Meritorious Service Award
 - Army Commendation Medal (2 awards)
 - North Carolina Commendation Medal
 - National Defense Service Medal
 - North Carolina Army Achievement Medal
 - Humanitarian Service Medal, 1997 (Hurricane Floyd)
 - North Carolina Service Award w/5 yr device
 - Humanitarian Service Medal, 1996 (Hurricane Fran)
 - NCNG Meritorious Unit Citation; NCO Professional Development Award (3 awards)
 - Armed Forces Reserve Medal] Army Commendation Achievement Medal (5 awards)
 - Army Oversees Training Ribbon; Army Service Ribbon
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Jeffrey E. Welch

Education

- B.S., University of North Carolina, Chapel Hill, NC; Zoology, 1982.
- Ph.D., University of North Carolina, Chapel Hill, NC; Cell Biology and Anatomy, 1988.

Professional Experience

- 1995-present: Research Biologist, EPA.

Research Interests

- Gene expression during spermatogenesis.
- Testicular synthesis of glutathione.
- Metabolism in germ cells and early embryos.

Professional Activities

- Participant, Assessment of CIIT report on MMT (methylcyclopentadienyl manganese tricarbonyl) as a fuel additive.
- Participant, Review of American Petroleum Institute submissions for reproductive toxicity of gasoline vapor and fuel additive.
- Reviewer, Assessment of ethyl tert-butyl ether, Integrated Risk Information System, EPA.
- Member, Safe Pesticides/Safe Products (SP2) Long Term Goal 1 Workgroup, EPA.

Invited Lectures/Symposia

- Neurotoxicology Division, NHEERL, EPA: SP22: A reproductive biomarker with implications for Parkinsonism. 2006.

Selected Publications

Welch JE, Barbee RR, Magyar PL, Bunch DO, O'Brien DA. 2006. Expression of the spermatogenic cell-specific glyceraldehyde 3-phosphate dehydrogenase (GAPDS) in rat testis. *Mol Reprod Dev.* 73:1052-60. [Abstract](#)

Wilson VS, Cardon MC, Thornton J, Korte JJ, Welch JE, Gray LE, Hartig PC. 2004. Cloning, expression and characterization of the androgen receptor and isolation of estrogen receptor alpha from the fathead minnow (*pimephales promelas*). *Environ Sci Technol.* 38:6314-21. [Abstract](#)

Vickie S. Wilson

Education

- B.S., Framingham State College, Framingham, MA; 1992.
- Ph.D., North Carolinas State University, 1999.

Professional Experience

- 2000-present: Research Biologist, EPA.

Research Interests

- Cellular and molecular mechanisms of toxicant-induced abnormal reproductive development using in vitro and in vivo models.
- Interaction of xenobiotics with the androgen receptor and effects on androgen regulated genes.
- Development of novel in vitro assays to assist with extrapolation across species.

Professional Activities

- Editorial Board: Biology of Reproduction.
- Member, International committee to develop a recombinant human estrogen receptor binding assay, an international effort including representatives from the U.S. EPA (Office of Science Coordination and Policy and Reproductive Toxicology Division), European Centre for the Validation of Alternative Methods, Organization for Economic Cooperation and Development, and Japan (Chemicals Evaluation and Research Institute). 2004-present.
- Advisor, providing technical support and advice to many labs on both the MDA-kb2 and T47D-Kbluc cell lines; point of contact on the culture and use of these transcriptional activation assays.
- Contract Officer Representative and scientific/technical consult with CEETox Inc., National Center for Computational Toxicology Proof of Concept Study. 2005-present.
- Chair, Organizing Committee for CAFO (Concentrated Animal Feedlot Operation Workshop Initial face to face planning meeting, Research Triangle Park, NC. 2006.
- Member, Workgroup on Office of Research and Development-wide committee to evaluate the use of Toxicogenomics data in Risk Assessment: Case Study for a Chemical in the Androgen-Mediated Male Reproductive Development Toxicity Pathway. 2005-present.
- Contributor, EPA Board of Scientific Counselors Review of the Endocrine Disruptor Chemicals Program.
- Member, Endocrine Disruptors Screening Program Group (Reproductive Toxicology Division), providing technical expertise and advice to the Office of

Cynthia Wolf

Education

- B.S., Rutgers – The State University of New Jersey; Animal Science, 1984.
- M.S., North Carolina State University, Raleigh, NC; Physiology, 1994.
- Ph.D., North Carolina State University, Raleigh, NC; Toxicology, 2002.

Professional Experience

- 1995: Laboratory Technician, Man Tech Environmental Technology, Inc., Contractor to EPA.
- 1995-Present: Biologist, EPA.

Awards and Honors

- EPA Scientific and Technological Achievement Award for antiandrogenic actions of vinclozolin, 2001

Professional Societies

- Society for the Study of Reproduction
- Society of Toxicology
- North Carolina Society of Toxicology

Selected Publications

Kato K, Silva MJ, Wolf CJ, Gray LE, Needham LL, Calafat AM. 2007. Urinary metabolites of diisodecyl phthalate in rats. *Toxicology*. 236:114-22. [Abstract](#)

Abbott BD, Wolf CJ, Schmid JE, Das K, Zehr R, Helfant L, Nakayama S, Lindstrom AB, Strynar MJ, Lau C. 2007. Perfluorooctanoic acid (PFOA)-induced developmental toxicity in the mouse is dependent on expression of peroxisome proliferator activated receptor-alpha (PPAR- α). *Toxicol Sci*. 98:571-81. [Abstract](#)

Wolf CJ, Fenton SE, Schmid JE, Calafat AM, Kuklenyik Z, Thibodeaux JR, Das K, White SS, Lau C, Abbott BD. 2007. Developmental toxicity of perfluorooctanoic acid (PFOA) after cross foster and restricted gestational exposures. *Toxicol Sci*. 95:462-73. [Abstract](#)

Silva MJ, Kato K, Wolf CJ, Samandar E, Silva SS, Gray LE, Needham LL, Calafat AM. 2006. Urinary biomarkers of di-isononyl phthalate in rats. *Toxicology*. 223:101-12. [Abstract](#)

Carmen Wood

Education

- B.S., North Carolina State University, Raleigh, NC; Biochemistry, 1987.

Professional Experience

- 1988-1995: Scientist, Man Tech Environmental, Inc. Contractor to EPA.
- 1995-1997: Biological Laboratory Technician, EPA.
- 1997-Present: Biologist, EPA.

Awards and Honors

- EPA Scientific and Technological Achievement Award. 1999.

Selected Publications

White SS, Calafat AM, Kuklenyik Z, Villanueva L, Zehr RD, Helfant L, Strynar MJ, Lindstrom AB, Thibodeaux JR, Wood C, Fenton SE. 2007. Gestational PFOA exposure of mice is associated with altered mammary gland development in dams and female offspring. *Toxicol Sci.* 96:133-44. [Abstract](#)

Rosen MB, Thibodeaux JR, Wood CR, Zehr RD, Schmid JE, Lau C. 2007. Gene expression profiling in the lung and liver of PFOA-exposed mouse fetuses. *Toxicology.* 239:15-33. [Abstract](#)

Martin MT, Brennan RJ, Hu W, Ayanoglu E, Lau C, Ren H, Wood CR, Corton JC, Kavlock RJ, Dix DJ. 2007. Toxicogenomic study of triazole fungicides and perfluoroalkyl acids in rat livers predicts toxicity and categorizes chemicals based on mechanisms of toxicity. *Toxicol Sci.* 97:595-613. [Abstract](#)

Tully DB, Bao W, Goetz A, Blystone C, Ren H, Schmid JE, Strader LF, Wood CR, Best DS, Narotsky MG, Wolf DC, Rockett JC, Dix DJ. 2006. Gene expression profiling in liver and testis of rats to characterize the toxicity of triazole fungicides. *Toxicol Appl Pharmacol.* 215:260-73. [Abstract](#)

Tully DB, Luft JC, Rockett JC, Ren H, Schmid JE, Wood CR, Dix DJ. 2005. Reproductive and genomic effects in testes from mice exposed to the water disinfectant byproduct bromochloroacetic acid. *Reprod Toxicol.* 19:353-66. [Abstract](#)

Goetz AK, Bao W, Ren H, Schmid JE, Tully DB, Wood C, Rockett JC, Narotsky MG, Sun G, Lambert GR, Thai SF, Wolf DC, Nesnow S, Dix DJ. 2006. Gene

Robert M. Zucker

Education

- B.S., University of California, Los Angeles, CA; Physics, 1965.
- M.S., University of California, Los Angeles, CA; Biophysics & Nuclear Medicine, 1966.
- Ph.D., University of California, Los Angeles, CA; Biophysics, 1970.

Professional Experience

- 1985-1994: Senior Project Scientist, ManTech, Inc., Contractor to EPA.
- 1995-Present: Research Biologist, EPA.

Research Interests

- Application of biophysical technologies to study toxicological cellular changes.
- 3D Visualization of biological structures.
- Utilization of flow cytometry and confocal microscopy to study effects of toxic chemicals.
- Maximization of data quality using laser-based technologies.

Professional Activities

- Adjunct Faculty: Department of Pathology, East Carolina University, Greenville, NC.; Department of Molecular Biological Sciences, College of Veterinary Medicine, North Carolina State University, Raleigh, NC.
- Councilor of International Society of Analytical Cytology. 2002-2006.
- Secretary of International Society of Analytical Cytology. 2004-2008.
- Member, Steering Committee of Research Triangle Cytometry Association. 1994-present.
- Guest Editor, Cytometry, Spectroscopy special issue. August, 2006.
- Cover Editor, Cytometry, 2006-present.
- Awarded, Best Biotechniques Cover for 2005
- Nikon Small World Distinguished Award, 2005.
- Member, Organizing Committee of Workshop on Calibration and Quantitation, National Institute of Standards and Technology. 2006.
- Member, Organizing Committee of Annual International Meeting, International Society of Analytical Cytology, Quebec City, Quebec. 2006

Invited Lectures and Seminars, International

- Confocal Imaging of Thick Tissue. German Flow Cytometry Society Meeting. Keynote lecture. Regensburg, Germany. Oct 2007.
- Confocal Imaging of Thick Tissue. 3rd Congress on Regenerative Medicine. International Society of Analytical Cytology Workshop on Regenerative Medicine. Leipzig, Germany Oct 2007.
- Tutorial on Confocal Microscopy. QA International Society of Analytical Cytology. Quebec City, Canada. May 2006.

James E. Andrews

Education

- B.S., University of North Carolina, Chapel Hill, NC; Chemistry/Zoology, 1974.
- M.S., North Carolina State University, Raleigh, NC; Toxicology, 1983.
- Ph.D., North Carolina State University, Raleigh, NC; Toxicology, 1987.

Professional Experience

- 1971-77: Research Chemist, EPA.
- 1977-present: Research Toxicologist, EPA.

Research Interests

- Investigations into the biochemical mechanisms of embryo toxicity and chemical teratogenesis.
- Effects of xenobiotics on embryos and extraembryonic membranes and the extent to which these reactions influence malformation and embryo toxicity.

Professional Activities

- Editorial Board: Reproductive Toxicology.
- Advisor for Guest Worker, Dr. T.S. Roy, All India University, New Delhi, India.

Selected Publications

Andrews JE, Nichols HP, Schmid JE, Mole LM, Hunter ES, Klinefelter GR. 2004. Developmental toxicity of mixtures: The water disinfection by-products dichloro-, dibromo- and bromochloro acetic acid in rat embryo culture. Reprod Toxicol. 19:111-6. [Abstract](#)

Huang, Y.S., Held, G.A., Andrews, J.E. and Rogers, J.M. (2001). (14)C methanol incorporation into DNA and proteins of organogenesis stage mouse embryos in vitro. Reproductive Toxicology 15(4):429-35.

Marianne Barrier

Education and Training

- B.S.: University of North Carolina, Greensboro, NC, Mathematics/Computer Science concentration, 1992
- Ph.D.: North Carolina State University, Raleigh, NC, Molecular Genetics, 2002
- Postdoctoral training: University of Washington, Seattle, WA, Teratology, 2002-2004
- Postdoctoral training: Texas A&M University, College Station, TX, Teratology, 2004-2007
- Postdoctoral training: US Environmental Protection Agency, RTP, NC, Reproductive Toxicology 2007-Present

Professional Positions

- Business Systems Analyst. EPA contractor providing computer graphics and systems support to EPA scientists. ManTech Environmental Technology Corp., Raleigh, NC, 1992-1996

Research Positions

- 1996-2002: Graduate Research Fellow. Department of Genetics, North Carolina State University, Raleigh, NC
- 2002-2004: Research Scientist II, Department of Pediatrics, University of Washington, Seattle, WA
- 2004-2007: Associate Research Scientist, Department of Veterinary Physiology and Pharmacology, Texas A&M University, College Station, TX
- 2007-Present: Biologist, Gamete and Early Embryo Biology Branch, Reproductive Toxicology Division, National Health and Environmental Effects Research Laboratory, US Environmental Protection Agency, RTP, NC

Professional Memberships and Service

- Member, Teratology Society, 2002-present
- Education Committee, Teratology Society, 2007
- Communications Working Group, Teratology Society, 2007

Honors and Awards

- NIH Training Grant Graduate Fellowship, North Carolina State University, 1996-1997, 1999-2001
- Graduate Certificate for Outstanding Teaching, NCSU, 1999

Deborah S. Best

Education

- AALAS Certified: Laboratory Animal Technician, RTP, NC, 1989
- Durham Technical College, Animal Science, Durham, NC, 1998
- Wake Technical College, Microbiology, Raleigh, NC, 1988

Professional Experience

- 1995 – Present: Biological Science Laboratory Technician, U.S. EPA, RTP, NC
- 1991 - 1994: Research Specialist, ManTech Environmental Technology, Inc., RTP, NC
- 1989 - 1991: Gastrointestinal Physiology Technician, College of Veterinary Medicine, NCSU, Raleigh, NC
- 1987 - 1989: Gnotobiotic Research Technician, College of Veterinary Medicine, NCSU, Raleigh, NC
- 1986 - 1987: Laboratory Technician, College of Veterinary Medicine, NCSU, Raleigh, NC
- 1983 - 1986: Veterinary Assistant, Tugaloo Animal Hospital, Lavonia, GA
- 1975 - 1982: Assembly Line Supervisor, Westclox, Franklin Springs, GA

Selected Awards and Honors

- AALAS President's Award, 1989
- Assistance/leadership provided to the scientific community
- Special classes taught
- Husbandry of Gnotobiotics-Specific Techniques Used In Rearing Axenic Rodents, North Carolina State University, College of Veterinary Medicine, 1989
- Husbandry and Bleeding Techniques of Poultry, North Carolina State University, College of Veterinary Medicine, 1988
- Husbandry of Gnotobiotics-Isolator Operation and Caesarean Derivation, North Carolina State University, College of Veterinary Medicine and U.S. EPA for RTB/AALAS, 1988

Assistant/Leadership to the Agency

- RTD Technician group leader, 2005

Publications

Bielmeier SR, Murr AE, Best DS, Harrison RA, Pegram RA, Goldman JM, Narotsky MG. 2007. Effects of bromodichloromethane on *ex vivo* and *in vitro* luteal function

Kathy Bobseine

Education:

- B.A., State University of New York Binghamton, Binghamton, NY; Biology, 1971.
- M.S., North Carolina State University, Raleigh, NC; Zoology, 1973.

Professional Experience:

- 1982-1986: Senior Scientist, Man Tech, Inc., Contractor to EPA.
- 1987-Present: Biologist, EPA.

Awards and Honors:

- EPA S Awards, 10 awards. 2002-2006.
- EPA Science and Technological Achievement Award, Level II. 2005.

Selected Publications:

Hartig PC, Cardon MC, Lambright CS, Bobseine KL, Wilson VS, Gray LE. 2007. Substitution of synthetic chimpanzee androgen receptor for human androgen receptor in competitive binding and transcriptional activation assays for EDC screening. *Toxicol Lett.* 174:89-97. [Abstract](#)

Kaydos E, Suarez JD, Roberts NL, Bobseine KL, Zucker RM, Laskey JW, Klinefelter GR. 2004. Haloacid induced alterations in fertility and the sperm biomarker SP22 in the rat are additive: Validation of an ELISA. *Toxicol Sci.* 81:430-42. [Abstract](#)

Wilson VS, Bobseine K, Gray LE. 2004. Development and characterization of a cell line that stably expresses an estrogen-responsive luciferase reporter for the detection of estrogen receptor agonist and antagonists. *Toxicol Sci.* 81:69-77. [Abstract](#)

Kawanishi CY, Hartig PC, Bobseine KL, Schmid JE, Cardon MC, Massenburg GS, Chernoff N, Kawanishi CY. 2003. Axial skeletal and hox expression domain alterations induced by retinoic acid, valproic acid and bromoxynil during murine development. *J Biochem Mol Toxicol.* 17:346-56. [Abstract](#)

Gray LE, Ostby J, Wilson V, Lambright C, Bobseine K, Hartig P, Hotchkiss A, Wolf C, Furr J, Price M, Parks L, Cooper RL, Stoker TE, Laws SC, Degitz SJ, Jensen KM, Kahl MD, Korte JJ, Makynen EA, Tietge JE, Ankley GT. 2002. Xenoendocrine disruptors-tiered screening and testing: Filling key data gaps. *Toxicology.* 181-182:371-82. [Abstract](#)

Angela Buckalew

Education

- B.S., North Carolina State University, Raleigh, NC: Biology, 1990.

Professional Experience

- 1990-1994: Scientist, ManTech Environmental Technology, Contractor to EPA.
- 1995-1986: Research Technician, Penn State Univ. College of Medicine, Hershey, PA.
- 1997-Present: Biologist, EPA.

Awards and Honors

- EPA Scientific and Technological Achievement Awards, Level II and Level III.

Selected Publications

Hecker M, Hollert H, Cooper R, Vinggaard AM, Akahori Y, Murphy M, Nellemann C, Higley E, Newsted J, Wu R. 2007. The OECD validation program of the h295r steroidogenesis assay for the identification of *in vitro* inhibitors and inducers of testosterone and estradiol production. Phase 2: Inter-laboratory pre-validation studies. *Env Sci Pollut Res*. 14:23–30. [Abstract](#)

Goldman JM, Murr AE, Buckalew AR, Ferrell JM, Cooper RL. 2007. Moderating influence of the drinking water disinfection by-product dibromoacetic acid on a dithiocarbamate-induced suppression of the luteinizing hormone surge in female rats. *Reprod Toxicol*. 23:541-9. [Abstract](#)

Stoker TE, Ferrell JM, Laws SC, Cooper RL, Buckalew AR. 2006. Evaluation of ammonium perchlorate in the endocrine disruptor screening and testing program's male pubertal protocol: Ability to detect effects of thyroid endpoints. *Toxicology*. 228:58-65. [Abstract](#)

Abbott BD, Buckalew AR, Leffler KE. 2005. Effects of epidermal growth factor (EGF), transforming growth factor-alpha (TGF-alpha), and 2,3,7,8-tetrachlorodibenzo-p-dioxin on fusion of embryonic palates in serum-free organ culture using wild-type, EGF knockout, and TGF-alpha knockout mouse strains. *Birth Defects Res A Clin Mol Teratol*. 73:447-54. [Abstract](#)

Goldman JM, Murr AS, Buckalew AR, Schmid JE, Abbott BD. 2004. Methoxychlor-induced alterations in the histological expression of angiogenic factors in pituitary and uterus. *J Mol Histol*. 35:363-75. [Abstract](#)

Mary C. Cardon

Education:

- B. S. Western Carolina University, Biology, 1981

Professional Experience:

- Jan. 1999-present: Biologist, Reproductive Toxicology Division, USEPA
- Biological Science Laboratory Technician, USEPA
- Scientist, ManTech Environmental Technology, Inc.
- Associate Scientist, ManTech Environmental Technology, Inc.
- Research Technician, Environmental Health Research and Testing, Inc.
- 1981: Laboratory Assistant, Western Carolina University

Awards and Honors:

- Scientific and Technological Achievement Award (STAA), Level III, for contributions to 2 publications, 2005
- STAA, Honorable Mention, for contributions to 2 publications, 2004
- Office of Research and Development, Science Communication Award for contributions to publications, 2004
- ORD, NHEERL Award for collaborative efforts with Mid-Continent Ecology Division, 2003

Selected Publications:

Wilson VS, Cardon MC, Gray LE, Hartig PC. 2007. Competitive binding comparison of endocrine-disrupting compounds to recombinant androgen receptor from fathead minnow, rainbow trout, and human. *Environ Toxicol Chem.* 26:1793-802. [Abstract](#)

Owens CV, Lambright C, Cardon M, Gray LE, Gullett BK, Wilson VS. 2006. Detection of androgenic activity in emissions from diesel fuel and biomass combustion. *Environ Toxicol Chem.* 25:2123-31. [Abstract](#)

Ankley GT, Jensen KM, Durhan EJ, Makynen EA, Butterworth BC, Kahl MD, Villeneuve DL, Linnam A, Gray LE, Cardon M, Wilson VS. 2005. Effects of two fungicides with multiple modes of action on reproductive endocrine function in the fathead minnow (*pimephales promelas*). *Toxicol Sci.* 86:300-8. [Abstract](#)

Gray LE, Wilson VS, Stoker TE, Lambright CS, Furr JR, Noriega NC, Hartig PC, Cardon MC, Rosen MB, Ankley GT, Hotchkiss AK, Orlando EF, Guillette LJ, Kelce

Neil Chernoff

Education

- B.A., Brooklyn College, Brooklyn, NY; Biology, 1963.
- M.S., Ph.D., University of Miami, Miami, FL; Zoology, 1969.

Professional Experience

- 1971-present: Scientist, EPA..
- 1980-1981: Chief, Developmental Biology Branch, EPA.
- 1981-1987: Director, Developmental Biology Division, EPA.

Research Interests

- Teratogenesis, gene expression, toxicology testing methodologies.
- Relationships of maternal and fetal toxicities.
- Intergenerational effect, long term effects of pre- and postnatal undernutrition.

Professional Activities

- Adjunct Faculty: School of Agriculture and Life Sciences, North Carolina State University, Raleigh, NC.; Department of Toxicology, North Carolina State University, Raleigh, NC
- Editorial boards: Teratogenesis, Carcinogenesis and Mutagenesis, Journal of Applied Toxicology, Toxicology Methods: New Approaches in Toxicology and Safety Assessment, Archives of Environmental Contamination and Toxicology, Toxicology Mechanisms and Methods.

Selected Publications

Rogers EH, Zehr RD, Gage MI, Humpage AR, Falconer IR, Marr M, Chernoff N. 2007. The cyanobacterial toxin, cylindrospermopsin, induces fetal toxicity in the mouse after exposure late in gestation. *Toxicol.* 49:855-64. [Abstract](#)

Hunter ES, Blanton MR, Rogers EH, Mole M, Andrews JE, Chernoff N. 2006. Short-term exposures to dihaloacetic acids produce dysmorphogenesis in mouse conceptuses *in vitro*. *Reprod Toxicol.* 22:443-48. [Abstract](#)

Hunter ES, Rogers EH, Blanton MR, Richard AM, Chernoff N. 2006. Bromochloro-haloacetic acids: Effects on mouse embryos *in vitro* and QSAR considerations. *Reprod Toxicol.* 21:260-6. [Abstract](#)

Ralph L. Cooper

Education

- B.A., Monmouth College, West Long Branch, NJ; Psychology, 1968.
- Ph.D., Rutgers University, Newark, NJ; Psychobiology, 1973.

Professional Experience

- 1984-present: Research Biologist, EPA.
- 1996-present: Chief, Endocrinology Branch, RTD, NHEERL, EPA.

Research Interests

- Toxicant induced changes in neuroendocrine control of reproductive function.
- Age-related changes in neuroendocrine function.

Professional Activities

- Adjunct Faculty: Dept. Psychology, Duke Univ. Med. Ctr., Durham, NC.; Div. Med. Psychology, Duke Univ. Med. Ctr., Durham, NC.; Dept. Anatomy, Physiol. Sci. and Radiol., N.C. State Univ., Coll. Vet. Med., Raleigh, NC.
- Co-chair, Expert Panel on Assessment of the F1-extended One-generation Reproductive Toxicity Test, Office of Pesticides Programs/Office of Science Communication and Policy/Office of Research and Development. 2006-present.
- EPA Bronze Medal, 2004.
- Co-chair, Life Stages Task Force of the Technical Committee on Agricultural Chemical Safety Assessment, International Life Sciences Institute/Health and Environment Sciences Institute. 2003-2006.
- EPA Representative, Interagency Working Group on Endocrine Disruptors, National Science and Technology Council, Committee on Environment and Natural Resources, Toxics and Risk Subcommittee. 2003-present.
- Steering Committee: Office of Research and Development Endocrine Disrupting Chemicals Multi-Year Plan. 2003-present.
- Chair, Committee for Developing the Framework for the National Health and Environmental Effects Research Laboratory's Research Implementation Plan for Endocrine Disruptors. 1999-present.

Invited Lectures/Symposia

- Office of Drinking Water briefing: Atrazine mechanisms and new research (steroidogenesis, Central Nervous System): Do we know everything we should know? 2006.

Sally Perreault Darney

Education

- B.A., Newton College, Newton, MA; Biology, 1968.
- M.A.T., Brown University, Providence, RI; Biomedical Sciences, 1969.
- Ph.D., University of Hawaii, Honolulu, HI; Reproductive Biology, 1980.

Professional Experience

- 1984-present: Research Biologist, EPA.
- 1986-present: Supervisory Research Biologist, RTD, NHEERL, EPA.

Research Interests

- Toxicant-induced impairment of gamete production/function and its impact on fertility, early pregnancy loss and risk assessment.
- Fertilization: Regulation of molecular events associated with reactivation of the sperm nucleus.
- Disinfection byproducts in test species.

Professional Activities

- Adjunct Faculty: Department of Animal Science, College of Agriculture and Life Sciences, North Carolina State University Raleigh, NC; Department of Molecular Biomedical Science, School of Veterinary Medicine, North Carolina State University, Raleigh, NC.
- Editorial Boards: Journal of Andrology, Molecular Reproduction and Development, Biology of Reproduction, Reproductive Toxicology, Journal of Toxicology and Environmental Health, Part B.
- Editor-in-Chief, Journal of Andrology. 2007-2012.
- Associate Editor, Journal of Toxicology and Environmental Health, Part B. 2001-present.
- Associate Editor, Biology of Reproduction. 2005-2007.
- President, American Society of Andrology, 2006. Vice president, 2004. Program Chair, 2003.
- Member, Reproductive Biology Study Section, National Institutes of Health, Center for Scientific Review. 2003.
- Member, Cellular, Molecular and Integrative Reproduction Study Section, National Institutes of Health. 2006.
- Member, National Occupational Research Agenda Committee on Fertility and Pregnancy Abnormalities, National Institute for Occupational Safety and Health. 1998-2006.

Kaberi Pharikal Das

Education

- B.Sc., Victoria Institution, Calcutta, India; Physiology, Chemistry, Zoology, 1981.
- M.Sc., Calcutta University College of Science and Technology, Calcutta, India; Physiology(Biochemistry), 1983.
- Ph.D., Calcutta University, Calcutta, India; Physiology, 1991.

Professional Experience

- 1992-1996: Visiting Associate, NIEHS
- 1996-2003: Research Associate, EPA.
- 2005-Present: Biologist, EPA.

Awards and Honors

- National Research Council Research Associateship Post-doctoral Award, National Academy of Science, Washington, DC. 1996-1999.

Professional Societies

- Society for Neuroscience
- Society of Toxicology

Selected Publications

Abbott BD, Wolf CJ, Schmid JE, Das K, Zehr R, Helfant L, Nakayama S, Lindstrom AB, Strynar MJ, Lau C. 2007. Perfluorooctanoic acid (PFOA)-induced developmental toxicity in the mouse is dependent on expression of peroxisome proliferator activated receptor-alpha (PPAR- α). Toxicol Sci. 98:571-81. [Abstract](#)

Wolf CJ, Fenton SE, Schmid JE, Calafat AM, Kuklenyik Z, Thibodeaux JR, Das K, White SS, Lau C, Abbott BD. 2007. Developmental toxicity of perfluorooctanoic acid (PFOA) after cross foster and restricted gestational exposures. Toxicol Sci. 95:462-73. [Abstract](#)

Das KP, Freudenrich TM, Mundy WR. 2004. Assessment of PC12 cell differentiation and neurite growth: A comparison of morphological and neurochemical measures. Neurotoxicol Teratol. 26:397-406. [Abstract](#)

Robert G. Ellis-Hutchings

Education

- B.S., University of Wisconsin-Stevens Point, WI; Biology, Wildlife Management, 2001.
- Ph.D., University of California-Davis, CA; Pharmacology and Toxicology, 2006.

Professional Experience

- 2006-Present: Postdoctoral Trainee, Developmental Biology Branch, Reproductive Toxicology Division, National Health and Environmental Effects Research Laboratory, EPA.
- 2001-2006: Doctoral Research, Departments of Nutrition and Environmental Toxicology, University of California-Davis.
- 2002-2006: Teaching Assistant in Experimental Nutrition, Department of Nutrition, University of California-Davis.
- 2003: Teaching Assistant-Pharmacology and Toxicology Graduate Group, University of California-Davis.
- 1999-2001: Biologist, Developmental and Reproductive Toxicology, Merck Pharmaceutical Company.
- 1998-1999: Biologist, Chronic and Subacute Toxicology, Merck Pharmaceutical Company.
- 1997: Society of Toxicology Research Internship in Reproductive and Developmental Toxicology, SmithKline Beecham Pharmaceuticals.
- 1997: Independent Study, Department of Aquatic Toxicology, UW-Stevens Point.

Professional Societies

- Society of Toxicology, member since 2003
 - Developmental and Reproductive Toxicology Session Co-Chair-2008 Annual Meeting
- Teratology Society-Member since 2002
 - Membership Planning Committee (Ad-Hoc), 2007-2008
 - Strategic Planning Committee Member, 2007
 - Education Committee Student Ad-Hoc Member, 2005-2007
- International Society for Development Origins of Health and Disease, member since 2006

Selected Awards and Honors

- Member, Society of Women Environmental Professionals. 2006.
- EPA Special Accomplishment Recognition Award, 2007

Suzanne E. Fenton

Education

- B.S., University of Wisconsin, Madison, WI; Dairy Science, 1988.
- M.S., University of Wisconsin, Madison, WI; Endocrinology-Reproductive Biology, 1990.
- Ph.D., University of Wisconsin, Madison, WI; Endocrinology-Reproductive Biology, 1993.

Professional Experience

- 1998-present: Research Biologist, EPA.

Research Interests

- Epidermal growth factor receptor & its ligands in the mammary gland.
- Signaling mechanisms, endocrine disrupting toxicants, mammary gland development.
- Mechanism of action of atrazine, simazine, and cyanazine in the brain.

Professional Activities

- Adjunct Faculty: Curriculum in Toxicology, University of North Carolina at Chapel Hill, Chapel Hill, NC.; School of Public Health, University of North Carolina at Chapel Hill, Chapel Hill, NC.; Depts. Biology & Chemistry, North Carolina Central University, Durham, NC.
- Editorial Board: Developmental and Reproductive Toxicology.
- Member, Multi-center Breast Cancer and the Environment Research Grant Working Group, National Institute of Environmental Health Sciences (NIEHS). 2006-2009.
- Expert Panelist, Mammary Gland Panel, National Toxicology Program Workshop on Rodent Models for Hormonally-Induced Reproductive Tumors, National Institute of Environmental Health Sciences (NIEHS). 2006.
- Core Member, National Children's Study, Early Origins of Adult Health group. 2002-2005.
- Member, Study Assembly of the Longitudinal Cohort Study of Environmental Effects on Child Health and Development. 2002-2005.
- Member, Biological Sample Collection Panel, National Children's Study. 2005-2006.
- Briefing on perfluorooctanoic acid (PFOA), EPA Office of Pollution Prevention & Toxic Substances. 2005.
- Briefing on atrazine, EPA Office of Pollution Prevention & Toxic Substances. 2005.

Melanie J. Powers Fraites

Education

- B.S., Framingham State College, Framingham, MA; 1992.
- Ph.D., North Carolinas State University, 1999.
- Doctor of Philosophy in Medical Sciences, University of Florida College of Medicine, Gainesville, FL, December 2006.
- Bachelor of Science in Biology, Ithaca College, Ithaca, NY, May 2001.

Research Experience

- Postdoctoral Fellow, Dr. Ralph Cooper, United States Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Reproductive Toxicology Division, Endocrinology Branch (MD-72), Research Triangle Park, NC 27711, January 2007-present.
- Graduate Research Assistant, Department of Physiology and Functional Genomics, University of Florida, Gainesville, FL, April 2003 – December 2006.
- Graduate Research Assistant, Department of Cell Biology, Department of Cell Biology, University of Arizona, Tucson, AZ. August 2001 – June 2002
- Research Intern, Department of Physiology and Neuroscience, Summer Undergraduate Research Program, Sackler Institute of Graduate Biomedical Sciences, New York University School of Medicine, New York, NY, June 2000-August 2000.
- Undergraduate Research Assistant, Department of Biology, Ithaca College, Ithaca, NY, January 1998 – May 2001.

Grants and Awards

- Recipient, Medical Education Teaching Award, University of Florida, 2005.
- Grant Recipient, American Heart Association Predoctoral Fellowship, University of Florida, 2004.

Professional Activities

- Editorial Board: Biology of Reproduction.
- EPA Bronze Medal, for outstanding contributions to the Agency's Endocrine Disruptor Screening Program. 2004.

Invited Lectures/Symposia

- American Society of Andrology Annual Meeting, Symposium on Endocrine Issues in Male Reproductive Failure: Environmental anti-androgens: Altered development and function of the male reproductive tract. 2006.

Johnathan R. Furr

Education

- B.S., North Carolina State University, Raleigh, NC; Zoology, 2004.

Professional Experience

- 1999-2005: Biological Sciences Laboratory Technician, EPA.
- 2005-Present: Biologist, EPA.

Awards and Honors

- EPA Scientific and Technological Achievement Award, 2006.

Selected Publications

Wilson VS, Howdeshell K, Lambright CS, Furr JR, Gray LE. 2007. Differential expression of the phthalate syndrome in male Sprague Dawley and Wistar rats after *in utero* DEHP exposure. *Toxicol Lett.* 170:177-84. [Abstract](#)

Blystone CR, Lambright CS, Howdeshell KL, Furr J, Sternberg RM, Butterworth BC, Durhan EJ, Makynen EA, Ankley GT, Wilson VS, Leblanc GA, Gray LE.. 2007. Sensitivity of fetal rat testicular steroidogenesis to maternal prochloraz exposure and the underlying mechanism of inhibition. *Toxicol Sci.* 97:512-9. [Abstract](#)

Blystone C, Furr JR, Lambright CS, Ryan BC, Howdeshell K, Wilson VS, Leblanc GA, Gray LE. 2007. Prochloraz inhibits testosterone production at dosages below those that affect androgen-dependent organ weights or the onset of puberty in the male Sprague Dawley rat. *Toxicol Sci.* 97:65-74. [Abstract](#)

Gray LE, Wilson VS, Stoker TE, Lambright CS, Furr JR, Noriega NC, Howdeshell K, Ankley GT, Guillette L. 2006. Adverse effects of environmental antiandrogens and androgens on reproductive development in mammals. *Int J Androl.* 29:96-104; 105-8. [Abstract](#)

Stoker TE, Cooper RL, Lambright CS, Wilson VS, Furr JR, Gray LE. 2005. *In vivo* and *in vitro* anti-androgenic effects of DE-71, a commercial polybrominated diphenyl ether (PBDE) mixture. *Toxicol Appl Pharmacol.* 207:78-88. [Abstract](#)

Gray LE, Wilson VS, Noriega NC, Lambright CS, Furr JR, Stoker TE, Laws SC, Goldman JM, Cooper RL, Foster P. 2004. Use of the laboratory rat as a model in endocrine disruptor screening and testing. 42:425-37. [Abstract](#)

Emily Kaydos Gibson

Education

- B.S., North Carolina State University, Raleigh, NC; Animal Science and Nutrition, 2001.
- M.S., North Carolina State University, Raleigh, NC; Toxicology, 2004.

Professional Experience

- 2005-Present: Biologist, EPA.

Professional Societies

- Society for the Study of Reproduction
- Society of Toxicology

Professional Activities

- Member, Society of Women Environmental Professionals. 2006.

Selected Publications

Kaydos E, Suarez JD, Roberts NL, Bobseine KL, Zucker RM, Laskey JW, Klinefelter GR. 2004. Haloacid induced alterations in fertility and the sperm biomarker SP22 in the rat are additive: Validation of an ELISA. Toxicol Sci. 81:430-42. [Abstract](#)

Jerome M. Goldman

Education

- B.S., University of Pittsburgh, Pittsburgh, PA; Psychology, 1967.
- M.A., East Carolina University, Greenville, NC; Psychology, 1969.
- M.A., York University, Toronto, Ontario, Canada; Psychobiology, 1974.
- Ph.D., University of Waterloo, Waterloo, Ontario, Canada; Biopsychology, 1983.

Professional Experience

- 1987-1991: Research Scientist/Project Supervisor, ManTech Environmental Technology, Contractor to EPA.
- 1991-present: Research Biologist, EPA.

Research Interests

- Toxicant alterations in the neuroendocrine control of reproductive function (*in vivo/in vitro* approaches).
- Toxicant effects on steroidogenesis and oocyte release.

Professional Activities

- EPA representative, 5th Meeting of the Validation Management Group for Mammalian Testing, Task Force on Endocrine Disruptors Testing and Assessment, Organization for Economic Cooperative and Development, Washington, DC. 2006.
- Participant: Workshop on effect of variability of phytoestrogens and other estrogenic compounds in animal diets II. Durham, NC. 2006.
- Participant, Relevancy Reviews, STAR Grants Program, NCER. Exposure measurement tools for endocrine disrupting chemicals in mixtures. 2005.
- EPA Contracting Officer Representative, Research Contract – CEE TOX, Inc., Estrogen receptor/androgen receptor transcriptional activation assays. 2005.
- Member, Technical Advisory Team, Research Contract – ENTRIX, Optimization of the H295R cell line for use in evaluating toxicant-induced effects on steroidogenesis. 2003-present.
- Member, Organizing Committee, Endocrine Disruptors Program Review Workshop, 2002.

Invited Lectures/Symposia

- Endocrine Disruptors Methods Validation Advisory Committee: Steroidogenesis: The sliced testis protocol. 2005.

L. Earl Gray, Jr.

Education

- B.S., Cornell University, Ithaca, NY; Biology, 1967.
- Ph.D., North Carolina State University, Raleigh, NC; Zoology, 1976.

Professional Experience

- 1979-present: Research Biologist, EPA.

Research Interests

- Cellular and molecular mechanisms of toxicant-induced alterations of morphological and behavioral sexual differentiation in male and female rodents.

Professional Activities

- Editorial Boards: Journal of Toxicology and Environmental Health, Biology of Reproduction.
- Undergraduate, graduate, and postdoctoral trainee research advisor: University of Florida, North Carolina State University, and University of North Carolina at Chapel Hill.
- Member, Organizing Committee, Ten Year Review of Endocrine Disrupting Chemicals Research for meeting at the Finnish Academy of Science. 2006.
- Symposium organizer and co-chair, International Toxicology Association, meeting on sexually dimorphic behavior and nervous system development. 2007.
- Member, Expert Science Panel for Bisphenol A, Center for the Evaluation of Risks to Human Reproduction. 2007.
- Member, Organizing Committee, Copenhagen meetings on endocrine disrupting chemicals and reproductive health. 2004 and 2007.
- Chair, Workshop on Mechanisms of EDC Action, Finland Academy of Science. 2006.
- Two EPA bronze medals, 2005.
- Member of organizing committee, and speaker, Copenhagen Workshop on the Environment, Reproductive Health and Fertility. 2005.
- Instructor, Teratogens Update Course, Massachusetts General Hospital, Boston, MA. 2005.
- Member, Endocrine Disrupting Chemicals Research Planning Committee, National Health and Environmental Effects Research Laboratory, EPA. 2000-present.
- Member, Endocrine Disruptors Research Strategy Committee, Office of Research and Development, EPA. 1996-present.

Brian E. Grey

Education

- B.S., University of North Carolina at Charlotte, Charlotte, NC; Biology, 1995.
- M.S., University of North Carolina at Charlotte, Charlotte, NC; Biology, 2000.

Professional Experience

- 2001-Present: Biologist, EPA.

Professional Societies

- Teratology Society
- Society of Toxicology

Selected Publications

Grasty RC, Wolf DC, Grey BE, Lau C, Rogers JM. 2003. Prenatal window of susceptibility to perfluorooctane sulfonate-induced neonatal mortality in the Sprague-Dawley rat. Birth Defects Res B Dev Reprod Toxicol. 68:465-71. [Abstract](#)

Lau C, Thibodeaux JR, Hanson RG, Rogers JM, Grey BE, Stanton ME, Butenhoff JL, Stevenson LA. 2003. Exposure to perfluorooctane sulfonate during pregnancy in rat and mouse. II: Postnatal evaluation. Toxicol Sci. 74:382-92. [Abstract](#)

Thibodeaux JR, Hanson RG, Rogers JM, Grey BE, Barbee BD, Richards JH, Butenhoff JL, Stevenson LA, Lau C. 2003. Exposure to perfluorooctane sulfonate during pregnancy in rat and mouse. I: Maternal and prenatal evaluations. Toxicol Sci. 74:369-81. [Abstract](#)

Phillip C. Hartig

Education

- B.S., William Carey College, Hattiesburg, MS; Biology, 1977.
- M.S., Virginia Commonwealth University, Richmond, VA; Biology, 1980.
- Ph.D., Virginia Commonwealth University, Richmond, VA; Pathology, 1984.

Professional Experience

- 1986-1994: Project Scientist, Man Tech Environmental Inc., RTP, NC.
- 1994-1995: Research Scientist, ManTech Environmental Inc., RTP, NC.
- 1994-present: Research Biologist, EPA.

Research Interests and Skills

- Influence of xenobiotics or infectious agents on development.
- Hazard identification of biotechnology products.

Professional Activities

- Journal reviewer: Teratology, BioTechniques, Birth Defects Research, Biology of Reproduction.
- Contributor, Concentrated Animal Feeding Operations (CAFO) Steering Committee.
- Manager, Interspecies gene library/stabilization project.
- Lambda gene librarian for interspecies project.
- Respondent to EPA Office of Science Coordination and Policy: Cloning and expression of Chimpanzee androgen receptor.
- Contributor, Board of Scientific Councilors Review (BOSC) of Endocrine Disrupting Chemicals Program. 2004.

Invited Lectures/Symposia

- Small Fish Meeting, EPA, National Health and Environmental Effects Research Laboratory, Mid-Continent Ecology Division, Duluth, MN: Sex steroid receptor sequence and function. 2002.
- Receptor Mechanisms Discussion Group, National Institute for Environmental Health Sciences, Research Triangle Park, NC: Sex steroid receptor structure and function across species. 2002.

Erin Pias Hines

Education

- B.S., Rhodes College, Memphis, TN; Biology, 1996.
- Ph.D., Louisiana State University Health Science Center, Shreveport, LA; Physiology, 2002.

Professional Experience

- 2004-Present: NHEERL Postdoctoral Fellow, EPA.

Awards and Honors

- EPA Silver Level Achievement Award, 2006.
- EPA Gold Level Achievement Award, 2006.

Professional Societies

- American Physiological Society
- The American Society for Molecular Biology and Biochemistry
- The Oxygen Society
- North Carolina Society of Toxicology
- The Society of Toxicology

Invited Lectures/Symposia

- Endocrine Society Annual Meeting, Boston MA. Measurement of phthalate levels in human milk in the US EPA MAMA study. 2006.
- Society of Toxicology Annual Meeting, Effects of atrazine and an atrazine metabolite mixture on differentiated mammary epithelial cell milk protein production in culture. 2005.

Selected Publications

Pias Hines EK, Raynor JL, Barbee RR, Moreland RA, Valcour A, Schmid JE, Fenton SE. 2007. Assays for endogenous components of human milk: Comparison of fresh and frozen samples and corresponding analytes in serum. J Hum Lact. 23:144-56. [Abstract](#)

Pias Hines EK, Hilario-Vargas J, Li N, Diaz LA. 2004. Humoral autoimmunity in pemphigus. Autoimmunity. 37:283-6. [Abstract](#)

Maria R. Hoopes (Blanton)

Education

- B.S.: North Carolina State University, Zoology, 1992

Professional Experience

- Feb 1999-Present: Biologist, Developmental Biology Branch, Reproductive Toxicology Division, National Health and Environmental Effects Research Lab, U.S. EPA
- April 1996-Feb 1999: Research Technician III, Anatomy, Physiology, and Radiology Department, North Carolina State University, Raleigh, NC
- Nov 1995- April 1996: Research Technician II, Pathology Department, Duke University Medical Center, Durham

Publications

Journal Articles

Hunter ES, Blanton MR, Rogers EH, Mole M, Andrews JE, Chernoff N. 2006. Short-term exposures to dihaloacetic acids produce dysmorphogenesis in mouse conceptuses *in vitro*. *Reprod Toxicol*. 22:443-48. [Abstract](#)

Hunter ES, Rogers EH, Blanton MR, Richard AM, Chernoff N. 2006. Bromochloro-haloacetic acids: Effects on mouse embryos *in vitro* and QSAR considerations. *Reprod Toxicol*. 21:260-6. [Abstract](#)

Johnson C, Blanton MR, Hunter ES. 2004. Effects of ethanol and hydrogen peroxide on mouse limb bud mesenchyme differentiation and cell death. *In Vitro Cell Dev Biol Anim*. 40:108-112. [Abstract](#)

Abstracts

Blanton MR, Padowski JM, Hunter ES, Rogers JM, and Lau C. PFOA Induces Dysmorphogenesis In Mouse Whole Embryo Culture. (2005 SOT)

Karoly ED, Schmid JE, Blanton MR, Hunter ES. Altered transcriptional responses in mouse embryos exposed to Bis 1 in Mouse Embryo culture. (2005 SOT)

E.P Hines, R. Barbee, M. Blanton, MS Pooler, and S.E. Fenton. Effects of Atrazine and an Atrazine Metabolite Mixture on Differentiated Mammary Epithelial Cell Milk Protein Production in Culture. (2005 SOT)

Andrew Hotchkiss

Education

- B.S., Davidson College, Davidson, NC; Biology, 1995.
- Ph.D., North Carolina State University, Raleigh, NC; 2001.

Professional Experience

- 2006-Present: Postdoctoral Trainee, EPA.

Professional Societies

- Triangle Consortium for Reproductive Biology
- North Carolina Society of Toxicology

Professional Activities

- Ad-hoc Reviewer: 15 journals.
- Co-organizer, EPA Endocrine Disrupting Chemicals Discussion Group.

Invited Lectures/Symposia

- Department of Biology, Alabama State University, Montgomery, AL. Hormonally Active Chemicals in the Environment. 2006.
- Research Triangle Institute, Research Triangle Park, NC. Environmental Influences on Reproduction and Behavior in Rodents. 2006.
- 18th Workshop of the International School of Ethology, Erice, Italy. Androgens and Environmental Antiandrogens Affect Reproductive Development and Play Behavior in the Sprague-Dawley rat. Impact of Endocrine Disruptors on Brain Development and Behavior. 2002.

Selected Publications

Hotchkiss AK, Nelson RJ. Melatonin: Immunomodulatory Signal. In: *Melatonin: From Molecules to Therapy*, Chapter 13. Eds: S.R. Pandi-Perumal and D.P. Cardinali. NovaScience Publishers, New York. pp. 227-245.

Hotchkiss AK, Lambright CS, Ostby JS, Parks-Saldutti L, Vandenberg JG, Gray LE. 2007. Prenatal testosterone exposure permanently masculinizes anogenital distance, nipple development, and reproductive tract morphology in female Sprague-Dawley rats. *Toxicol Sci.* 96:335-45. [Abstract](#)

Michelle Gatien Hotchkiss

Education/Training

- B.A., Ohio State University, Psychology, 1997
- M.A., Ohio State University, Psychology , 2004

Professional Experience

- April, 2006–present: Biologist, Reproductive Toxicology Division, NHEERL, US EPA

Professional Societies & Publication Boards

- Society for Neuroscience (2001-2004), member
- International Behavioral Neuroscience Society (2001-2004), member
- Society for Behavioral Neuroendocrinology (2003-2004), member
- Triangle Consortium for Reproductive Biology (2006-present), member

Selected Awards And Honors

- University Fellowship, The Ohio State University, 2001
- Summa Cum Laude, Honors in Liberal Arts, The Ohio State University, 1997
- Phi Kappa Phi, 1997
- Psi Chi, 1997

Assistance/Leadership Provided To The Scientific Community

- Ad-hoc Reviewer:
- Endocrinology
- Journal of Biological Rhythms
- US EPA, Internal Review

Publications

Weil ZM, Hotchkiss AK, Gatien Hotchkiss ML, Pieke-Dahl S, Nelson RJ. 2006. Melatonin receptor (MT1) knockout mice display depression-like behaviors and deficits in sensorimotor gating. *Brain Res Bull.* 68:425-9. [Abstract](#)

Gatien Hotchkiss ML, Hotchkiss AK, Dhabhar FS, Nelson RJ. 2005. Skeleton photoperiods alter delayed-type hypersensitivity responses and reproductive function of Siberian hamsters (*phodopus sungorus*). *J Neuroendocrinol.* 17:733-9. [Abstract](#)

Kembra L. Howdeshell

Education

- B.S., Friends University, Wichita, KS; Biology, 1991.
- M.S., Emporia State University, Emporia, KS; Biology, 1996.
- Ph.D., University of Missouri-Columbia, Columbia, MO; Biology, 2002.

Professional Experience

- 2006-Present: Research Biologist/Postdoctoral Fellow, EPA.
- 2004-2006: Postdoctoral Trainee, North Carolina State University/EPA.

Awards and Honors

- Second Place Award for Graduate Student/Postdoctoral Trainee presentations in the Reproductive and Developmental Toxicology Section of the 45th Annual Meeting of the Society of Toxicology, San Diego, CA. 2006.
- Best Poster Award for Graduate Students/Postdoctoral Trainees, Environmental Endocrine Disruptors: Gordon Research Conference, Colby-Sawyer College, New London, NH. 2004.

Professional Societies

- Society for the Study of Reproduction
- Sigma Xi Scientific Society
- Society for Integrative and Comparative Biology

Invited Lectures/Symposia

- 36th Session of the Erice International Seminars on Planetary Emergencies and Associated Workshops, Ettore Majorana Foundation and Centre for Scientific Culture, Erice, Italy. Cellular and molecular mechanisms of phthalate-induced abnormal reproductive development in male rats: Relevance to humans? 2006.
- 5th Trans-Tech Meeting, Uppsala University, Umea University, and the Karolinska Institute, Stockholm, Sweden/Uppsala Sweden: Bisphenol A release from polycarbonate caging: Evidence of leaching and estrogenic effects on laboratory animals. 2004.
- 18th Workshop of the International School of Ethology on "Impact of Endocrine Disruptors on Brain Development and Behavior", Ettore Majorana Foundation and Centre for Scientific Culture, Erice, Italy. A model of the development of the brain as a construct of the thyroid system. 2002.

E. Sidney Hunter, III

Education

- B.S., Hampden Sydney College, Hampden-Sydney, VA; Chemistry, 1980.
- M.S., Old Dominion University, Norfolk, VA; Toxicology, 1983.
- Ph.D., University of North Carolina at Chapel Hill, Chapel Hill, NC; Anatomy/Embryology, 1986.

Professional Experience

- 1993-present: Toxicologist, EPA.
- 2005-present: Acting Branch Chief, Gamete and Early Embryo Biology Branch, RTD, NHEERL, EPA.

Research Interests

- Mechanisms of embryonic development.
- Evaluating effects of xenobiotics and model pharmacological inhibitors using whole embryo culture.
- Evaluating effects of modulating gene expression (antisense oligonucleotides and adenovirus delivery) on morphogenesis.
- Evaluating effects of xenobiotics (e.g. haloacetic acids) on embryonic gene and protein expression.
- Using embryonic stem cells as a model to evaluate effects of xenobiotics on differentiation.

Professional Activities

- Member, Organizing Committee, International Life Sciences Institute/Health and Environmental Sciences Institute Scientific Meeting: Evaluation of In Vitro Systems for Prediction and Assessment of Developmental Toxicants. Stem cell section. 2007.
- Course co-director, Embryology and Teratology, Department of Cell and Developmental Biology/Curriculum in Toxicology, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC. 2003, 2005, 2007.
- Co-organizer, Symposium on Genomics and Proteomics in Reproductive and Developmental Toxicity. Society of Toxicology, Salt Lake City, UT. 2003.
- Member, International Life Sciences Institute (ILSI) Scientific Panel: Statistically-based Structure-Activity Relationships (SAR) Systems for Developmental Toxicity: Limitations and Challenges. ILSI Risk Science Institute. 2003.
- Member, Genomics and Proteomics Committee, National Health and Environmental Effects Research Laboratory, EPA. 2001-2006. Chair-2006.
- Member, doctoral committees, University of North Carolina at Chapel Hill: Toxicology Curriculum, School of Medicine; Department of Cell Biology and Anatomy, School of Medicine; Environmental Sciences and Engineering, School of Public Health.
- Chair, Proteomics Users Group, National Health and Environmental Effects Research Laboratory, Health Division, EPA. 2004-2006.

Susan Jeffay

Education

- B.S., University of Illinois, Champaign/Urbana, Animal Science, 1983

Professional Experience

- 1995–present: Biologist, Reproductive Toxicology Division, USEPA, RTP, NC
- 1989–1994: Senior Scientist, Reproductive Toxicology Branch, Man Tech Environmental Technology, Inc., RTP, NC
- 1985–1989: Research Technologist II, Reproductive Biology – Andrology Laboratory, University of Washington Medical Center, Seattle, WA
- 1984–1985: Research Technician, Children's Hospital and Medical Center, Seattle, WA
- 1983–1984: Laboratory Technician, Drug Metabolism Department, Abbott Laboratories, Abbott Park, IL

Publications

Luben TJ, Olshan AF, Herring AH, Jeffay SC, Strader LF, Buus RM, Chan RL, Savitz DA, Singer PC, Weinberg HS, Perreault SD. 2007. The healthy men study: An evaluation of exposure to disinfection by-products in tap water and sperm quality. *Environ Health Perspect.* 115:1169-76. [Abstract](#)

Olshan AF, Perreault SD, Bradley L, Buus RM, Strader LF, Jeffay SC, Lansdell L, Savitz DA, Herring A. 2007. The healthy men study: design and recruitment considerations for environmental epidemiologic studies in male reproductive health. *Fertil Steril* 87(3):554-564. [Abstract](#)

Klinefelter GR, Welch JE, Perreault SD, Moore HD, Zucker RM, Suarez JD, Roberts NL, Bobseine K, Jeffay S. 2002. Localization of the sperm protein SP-22 and inhibition of fertility *in vivo* and *in vitro*. *J Androl.* 23:48-63. [Abstract](#)

Stoker TE, Jeffay SC, Zucker RM, Cooper RL, Perreault SD. 2003. Abnormal fertilization is responsible for reduced fecundity following thiram-induced ovulatory delay in the rat. *Biol Reprod.* 68:2142-9. [Abstract](#)

Zucker RM, Jeffay SC. 2006. Confocal laser scanning microscopy of whole mouse ovaries: Excellent morphology, apoptosis detection, and spectroscopy. *Cytometry A.* 69:930-9. [Abstract](#)

Zuelke KA, Jeffay SC, Zucker RM, Perreault SD. 2003. Glutathione (GSH) concentrations vary with the cell cycle in maturing hamster oocytes, zygotes, and pre-implantation stage embryos. *Mol Reprod Dev.* 64:106-12. [Abstract](#)

Gary R. Klinefelter

Education

- B.S., Pennsylvania State University, University Park, PA; Animal Science, 1976.
- M.S., Pennsylvania State University, University Park, PA; Dairy Science, 1979.
- Ph.D., University of Minnesota, Minneapolis, MN; Anatomy, 1984.

Professional Experience

- 1988-1991: Research Scientist, Man Tech Environmental Technology, Inc., Contractor to EPA.
- 1991-present: Research Biologist, EPA.

Research Interests

- Development of novel biomarkers of reproductive development and fertility.
- Characterization of effects of disinfection byproducts of drinking water on the male reproductive system.
- Biochemical and morphological characterization of epididymal epithelial cell and Leydig cell function.

Professional Activities

- Editorial Boards: Journal of Andrology, Toxicological Sciences.
- Associate editor, Toxicological Sciences.
- Contact person/Research Team Leader for drinking water research in the Reproductive Toxicology Division, National Health and Environmental Effects Research Laboratory, EPA. 1996-2005.
- Participant in RTD's response to the Endocrine Disrupting Chemicals Implementation Plan Committee. 2000-present.
- RTD representative on Steering Committee for Drinking Water Implementation Plans, National Health and Environmental Research Laboratory, EPA. 2000-2004.

Invited Lectures/Symposia

- American Society of Andrology Symposium: Saga of a novel sperm biomarker: Discovery to proof of concept. 2003.
- Society of Toxicology Symposium: Saga of a novel sperm biomarker: Discovery to proof of concept. 2003.
- North Carolina State University, Department of Toxicology: Saga of a novel sperm biomarker: Discovery to proof of concept. 2002.

Christy Stone Lambright

Education

- B.S., North Carolina State University, Raleigh, NC; Animal Science, 1992.
- M.S., North Carolina State University, Raleigh, NC; Life Sciences, 1995.

Professional Experience

- 1991-1992; Jan.-Dec. 1994: Laboratory Technician, Man Tech Environmental Technology, Inc., Contractor to EPA.
- 1995-Present: Laboratory Technician/Biologist, EPA.

Awards and Honors

- Scientific and Technological Achievement Awards, 1996, 1999, 2002, 2003, 2004, 2006.

Selected Publications

Howdeshell KL, Furr JR, Lambright CS, Wilson VS, Gray LE. 2007. Cumulative effects of dibutyl phthalate and diethylhexyl phthalate on male rat reproductive tract development: Altered fetal steroid hormones and genes. *Toxicol Sci.* 99:190-202.

[Abstract](#)

Wilson VS, Howdeshell K, Lambright CS, Furr JR, Gray LE. 2007. Differential expression of the phthalate syndrome in male Sprague Dawley and Wistar rats after *in utero* DEHP exposure. *Toxicol Lett.* 170:177-84. [Abstract](#)

Blystone C, Furr JR, Lambright CS, Ryan BC, Howdeshell K, Wilson VS, Leblanc GA, Gray LE. 2007. Prochloraz inhibits testosterone production at dosages below those that affect androgen-dependent organ weights or the onset of puberty in the male Sprague Dawley rat. *Toxicol Sci.* 97:65-74. [Abstract](#)

Hotchkiss AK, Lambright CS, Ostby JS, Parks-Saldutti L, Vandenberg JG, Gray LE. 2007. Prenatal testosterone exposure permanently masculinizes anogenital distance, nipple development, and reproductive tract morphology in female Sprague-Dawley rats. *Toxicol Sci.* 96:335-45. [Abstract](#)

Blystone CR, Lambright CS, Howdeshell KL, Furr J, Sternberg RM, Butterworth BC, Durhan EJ, Makynen EA, Ankley GT, Wilson VS, Leblanc GA, Gray LE.. 2007. Sensitivity of fetal rat testicular steroidogenesis to maternal prochloraz exposure and the underlying mechanism of inhibition. *Toxicol Sci.* 97:512-9. [Abstract](#)

Christopher S. Lau

Education

- A.B., Duke University, Durham, NC; Chemistry/Zoology, 1975.
- Ph.D., Duke University, Durham, NC; Pharmacology, 1982.

Professional Experience

- 1984-1990: Research Scientist, NSI Technology Services, Contractor to EPA.
- 1990-2005: Pharmacologist, EPA.
- 2005-present: Lead Research Biologist, EPA.

Research Interests

- Developmental Toxicity.
- Cellular and Molecular Mechanisms.
- Dose-response Modeling.

Professional Activities

- Adjunct Faculty: Dept. Pharmacology and Cancer Biology, Duke University Medical Center, Durham, NC.; Dept. Biology, North Carolina Central University, Durham, NC.; Dept. Molecular and Biomedical Sciences, College of Veterinary Medicine, North Carolina State University, Raleigh, NC.
- Editorial Boards: Reproductive Toxicology, Toxicology, Brain Research Bulletin.
- EPA Bronze Medals for Commendable Service: 2005, 2006.
- Organizer, Perfluoroalkyl Acids Days workshop in Research Triangle Park to highlight perfluorinated chemical research at the EPA Office of Research and Development. 2006.
- Organizer, Contemporary Concepts in Toxicology Workshop on Perfluoroalkyl Acid Research, Society of Toxicology. 2006-present.
- Member, study design team on perfluoroalkyl acid research, National Toxicology Program, National Institute of Environmental Health Sciences. 2004-present.
- Continuing Education Committee, Teratology Society: Member 2003-present; Secretary 2005-2006; Chair 2006-2007.
- Reviewer, EPA Office of Prevention, Pesticides and Toxic Substances risk assessment on toxicity of perfluorooctanoic acid. 2005.
- International Advisor to FLUOROS: An International Symposium on Fluorinated Alkyl Organics in the Environment. 2004-2005.
- Reviewer, EPA Office of Prevention, Pesticides and Toxic Substances risk assessment on the developmental toxicity perfluorooctanoic acid. 2004.
- Organizer, Workshop at Research Triangle Park, NC, on trace analysis of perfluoroalkyl acids. 2004.

Susan C. Laws

Education

- B.S., Meredith College, Raleigh, NC; Biology, 1975.
- M.S., North Carolina State University, Raleigh, NC; Physiology, 1982.
- Ph.D., North Carolina State University, Raleigh, NC; Biochemistry, 1988.

Professional Experience

- 1985-Present: Research Biologist, EPA.

Research Interests

- Female Reproductive Toxicology
- Receptor Biochemistry
- Endocrine Disruptors and Mechanisms of Action

Professional Activities

- Member, RTD Endocrine Disruptor Screening Program Team, assisting the Office of Science, Coordination and Policy, US EPA, with development and validation of Tier I Screening Battery, 1999-present.
- Briefing on the effects of atrazine on steroidogenesis in Wistar rats, EPA Office of Pesticides Program, Washington, DC, July 2007.
- Editorial Boards: Journal of Toxicology and Environmental Health, Birth Defects Research: Developmental and Reproductive Toxicology.
- Briefing on interpreting mechanistic data from in vitro and in vivo endocrine assays, EPA Office of Water. 2006.
- Member, EPA's Categorization and Prioritization Community of Practice, National Center for Computational Toxicology. 2005-present.
- Member, Review Board: ReProTect Program, European Commission, Joint Research Centre, Institute for Health and Consumer Protection, European Centre for the Validation of Alternative Methods. 2005.
- Member, Endocrine Disruptors Testing and Assessment Validation Management Group for Non-Animal Testing, Organization for Economic Cooperation and Development. 2004-present.
- EPA Bronze Medal, 2004.
- Briefing on effects of atrazine on steroidogenesis, EPA Office of Prevention, Pesticides, and Toxic Substances. 2004.
- Member, Graduate Faculty Advisory Committee, Department of Molecular and Structural Biochemistry, North Carolina State University. 2000-2004.

Ellen F. Lorang

Education

- B.A., University of Michigan School of Education, Ann Arbor, MI: 1974
- Michigan Teacher's Certificate, Grades K-8, All Subjects
- M.A., Sociology of Education, University of Michigan Rackham School of Graduate Studies, Ann Arbor, MI: 1977

Professional Experience

- 1974-1976: Elementary School Teacher / Camp Director, Ann Arbor, MI
- 1977-1980: Secretary / Environmental Protection Specialist, Office of Mobile Sources, US EPA
- 1980-1984: Teacher / Administrator, Preschool & Elementary School, Ann Arbor, MI
- 1985-1996: Computer Developer/Graphic Designer Computer Consultant, Self-employed, Ann Arbor, MI
- 1997-1999: Administrator, Jewish Community Center of Washtenaw County, Ann Arbor, MI
- 1999-2002: Administrator, Durham-Chapel Hill Jewish Federation, Durham, NC
- 2002-2003: Executive Assistant, Rho, Inc. - Biostatistics, Chapel Hill, NC
- 2003-2006: Communications & Program Director, Durham-Chapel Hill Jewish Federation, Durham, NC
- 2006-2007: Division Secretary, Reproductive Toxicology, NHEERL, US EPA, Durham, NC
- 2007-present: Information Services Specialist, Reproductive Toxicology, NHEERL, US EPA, Durham, NC

Honors & Recognition

- Who's Who in American Colleges and Universities: 1974
- Volunteer of the Year, Durham-Chapel Hill Jewish Federation, Durham, NC: 2005
- Secretary of the Year, RTP, US EPA: 2007

Edward J. Massaro

Education

- A.B., Rutgers University, Rutgers, NJ; Biology, Chemistry, 1955.
- M.A., University of Texas, Austin, TX; Biochemistry, Cell Biology, 1958.
- Ph.D., University of Texas Medical Branch, Galveston, TX; Anatomy, Biochemistry, Physiology, 1962.

Professional Experience

- 1983-Present: Toxicologist, EPA.
- 1985-1990: Chief, Dosimetry; Director, Flow Cytometry, EPA.
- 1983-1986: Director, Inhalation Toxicology Division, EPA.

Research Interests and Skills

Biochemical toxicology of metals; neurotoxicology; inhalation toxicology; interaction of toxicants and drugs with cellular membranes, ion channels and the cytoskeleton; apoptosis; signal transduction; mechanism of action of endocrine disruptors.

Professional Activities

- Adjunct Faculty: Toxicology, Duke University, Durham, NC; 1986-present; Toxicology, UNC, Chapel Hill, NC. 1984-present.
- Editor: CRC Handbook of Human Toxicology, 1992-Present.
- Editor-in-Chief:
- Handbook of Neurotoxicology. Volume 1. Humana Press, Totowa, NJ. 672 pages, 2001.
- Handbook of Neurotoxicology. Volume 2. Humana Press, Totowa, NJ. 684 pages, 2002.
- Handbook of Copper Pharmacology and Toxicology. Humana Press, Totowa, NJ. 587 pages, 2002.
- Folate in Health and Disease (with John M. Rogers). Humana Press, Totowa, NJ. 376 pages, 2002.
- The Skeleton: Biochemical, Genetic and Molecular Interactions in Development and Homeostasis (with John M. Rogers). Humana Press, Totowa, NJ. 456 pages, 2004.
- Cell Biochemistry and Biophysics (an international journal). 1995-present .
- CRC Methods in Toxicology (a multi-volume series). 1995-present.
- Editorial Board: Biological Trace Element Research. 1983-present.

Connie A. Meacham

Education

- B.A., Grinnell College, Grinnell, IA; Biology/Chemistry, 1975.
- M.S., University of Alabama, Huntsville, AL; Cell Biology, 1996.

Professional Experience

- 1979-1982: Chemist and Shift Supervisor. Quality Assurance/Quality Control Laboratory. Kraft Foods, Champaign, IL
- 1982-1986: Research Specialist, University of Wisconsin-Madison, Departments of Dairy Science and Agronomy, Madison, WI.
- 1987-1990: Adjunct Science Faculty, Biology, Chemistry, General Science, Howard Community College, Columbia, MD
- 1992-1994: Laboratory Teaching Assistant, Anatomy and Physiology, University of Alabama, Huntsville, AL
- 1995-1996: Research Assistant, Endocrine and Reproductive Research, Alabama A&M University, Huntsville, AL
- 1997-Present: Biologist, EPA.
- 2006-Present: Acting Quality Assurance Manager, RTD, EPA.

Awards and Honors

- EPA, Honorable Mention, STAA, 2007
- EPA, Honorable Mention, NHEERL Teamwork Award, 2003.

Professional Societies

- Society of Toxicology
- Phi Kappa Phi
- Sigma Xi
- Society of Quality Assurance

Selected Publications

Watkins JA, Meacham CA, Crofton KM, Shafer TJ. 2007. Concentration-dependent accumulation of [(3)h]-deltamethrin in sodium channel na(v)1.2/-beta(1) expressing xenopus laevis oocytes. Toxicol In vitro. 21:1672-7. [Abstract](#)

Meacham CA, Freudenrich TM, Anderson WL, Sui L, Lyons-Darden T, Barone S, Gilbert ME, Mundy WR, Shafer TJ. 2005. Accumulation of methylmercury or

M. Leonard Mole

Education

- A.B., Berry College, Rome, GA; Chemistry & Math, 1963.
- M.S., Clemson University; Organic Chemistry, 1966.
- Ph.D., Clemson University, Organic Chemistry, 1971.

Previous Positions

- 1974-Present: Research Chemist. EPA.

Research Interests

Use of *in silico* modeling and computational toxicology techniques in the risk assessment of human exposure to environmental toxicants

Selected Publications

Hunter ES, Blanton MR, Rogers EH, Mole M, Andrews JE, Chernoff N. 2006. Short-term exposures to dihaloacetic acids produce dysmorphogenesis in mouse conceptuses *in vitro*. *Reprod Toxicol.* 22:443-48. [Abstract](#)

Andrews JE, Nichols HP, Schmid JE, Mole LM, Hunter ES, Klinefelter GR. 2004. Developmental toxicity of mixtures: The water disinfection by-products dichloro-, dibromo- and bromochloro acetic acid in rat embryo culture. *Reprod Toxicol.* 19:111-6. [Abstract](#)

Ashley S. Murr

Education

- B.S., North Carolina State University, Raleigh, NC; Biological Sciences, 1998.

Professional Experience

- 1998-Present: Biologist, EPA.

Awards and Honors

- Magna Cum Laude, North Carolina State University, 1998.
- Poster Award, Triangle Consortium for Reproductive Biology, 2003.
- Honorable Mention, EPA Scientific and Technological Achievement Award, 2006.

Selected Publications

Goldman JM, Murr AE, Buckalew AR, Ferrell JM, Cooper RL. 2007. Moderating influence of the drinking water disinfection by-product dibromoacetic acid on a dithiocarbamate-induced suppression of the luteinizing hormone surge in female rats. *Reprod Toxicol*. 23:541-9. [Abstract](#)

Goldman JM, Cooper RL, Murr AE. 2007. Reproductive functions and hypothalamic catecholamines in response to the soil fumigant metam sodium: Adaptations to extended exposures. *Neurotoxicol Teratol*. 29:368-76. [Abstract](#)

Bielmeier SR, Murr AE, Best DS, Harrison RA, Pegram RA, Goldman JM, Narotsky MG. 2007. Effects of bromodichloromethane on *ex vivo* and *in vitro* luteal function and bromodichloromethane tissue dosimetry in the pregnant F344 rat. *Toxicol In Vitro*. 21:919-28. [Abstract](#)

Goldman JM, Murr AE, Cooper RL. 2007. The rodent estrous cycle: Characterization of vaginal cytology and its utility in toxicological studies. *Birth Defects Res B Dev Reprod Toxicol*. 80:84-97. [Abstract](#)

Laws SC, Stoker TE, Goldman JM, Wilson VS, Gray LE, Cooper RL. 2006. The U.S. EPA's Endocrine Disruptor Screening Program: *In vitro* and *in vivo* mammalian Tier I screening assays. In: *Developmental and Reproductive Toxicology, A Practical Approach*. Ed.: R. Hood, CRC Press, Boca Raton, FL.

Murr AS, Goldman JM. 2005. Twenty week exposures to the drinking water disinfection by-product dibromoacetic acid: Reproductive cyclicity and steroid

Michael G. Narotsky

Education

- B.A., State University of New York, Buffalo, NY; Biology and Psychology, 1978.
- Ph.D., North Carolina State University, College of Veterinary Medicine, Raleigh, NC; Veterinary Medical Science, 1997.

Professional Experience

- 1987-1994: Senior Scientist, ManTech Environmental Technology, Inc., Contractor to EPA.
- 1995-present: Research Toxicologist, EPA.

Research Interests

- Developmental toxicity: Mixtures, structure-activity relationships, and axial skeletal development.
- Endocrinology of pregnancy and parturition.

Reproductive toxicity testing.

Professional Activities

- Member, EPA Drinking Water Implementation Team. 2005-present.
- Expert Panelist, Workshop on Optimizing Design and Interpretation of Epidemiologic Studies to Consider Alternative Disinfectants of Drinking Water, Raleigh, NC. 2005.
- Member, Education Committee, Teratology Society, 2001-2004. Chair, 2003-2004.
- Expert Panelist, Health Canada Workshop to Identify Critical Endpoints for Assessment of Health Risks Related to Trihalomethanes in Drinking Water, Ottawa, Ontario, Canada. 2002.
- Participant, EPA Office of Water Workshop on Risk Communication Issues Associated with Drinking Water Disinfection.
- Reviewer, developmental and reproductive toxicity studies submitted to EPA under the Fuel and Fuel Additives test rule.
- Reviewer, Integrated Risk Information System documents on brominated trihalomethanes.
- Auditor, Technical Systems Review of work on the Hershberger Assay.
- Member, Steering Committee, Cooperative Agreement to Conduct a Reproductive Toxicity Test of bromochloroacetic acid.

Harriette P. Nichols

Education

- B.S., East Carolina University, Biology, 1970
- A.A.S., Durham Technical Institute, Electronic Engineering, Technology, 1985
- North Carolina State University, Electrical Engineering, 1998 - 2003

Professional Experience

- 1971–1977: Research Technician II, Div. of Neurology, UNC School of Medicine
- 1977–1985: Research Technician III, Div. of Pulmonary Diseases, UNC School of Medicine
- 1985–1987: Electronic Test Technician, Sperry Corporation/Honeywell
- 1987–1990: Research Technician III, Dept. of Pathology, UNC School of Medicine
- 1990–1994: Senior Scientist, Man Tech Environmental Technology, Inc.
- 1995–present: Biologist, Reproductive Toxicology Division, USEPA

Agency Service

- EPA / RTP Educational Outreach Program Group
- EPA / RTP Disability Employment Program Manager

Publications

Goetz AK, Ren H, Schmid JE, Blystone CR, Thillainadarajah I, Best DS, Nichols HP, Strader LF, Wolf DC, Narotsky MG, Rockett JC, Dix DJ. 2007. Disruption of testosterone homeostasis as a mode of action for the reproductive toxicity of triazole fungicides in the male rat. *Toxicol Sci.* 95:227-39. [Abstract](#)

Rockett JC, Narotsky MG, Thompson K, Thillainadarajah I, Blystone C, Goetz A, Ren H, Best DS, Murrell R, Nichols HP, Schmid JE, Wolf DC, Dix DJ. 2006. Effect of conazole fungicides on reproductive development in the female rat. *Reprod Toxicol.* 22:647-58. [Abstract](#)

Andrews JE, Nichols HP, Schmid JE, Mole LM, Hunter ES, Klinefelter GR. 2004. Developmental toxicity of mixtures: The water disinfection by-products dichloro-, dibromo- and bromochloro acetic acid in rat embryo culture. *Reprod Toxicol.* 19:111-6. [Abstract](#)

Joel Norwood, Jr.

Education

- B.S., St. Augustine's College, Raleigh, Biology, 1990
- M.S., North Carolina Central University, Durham, Biology, 1998

Professional Experience

- May 2005 - present: Biologist, Developmental Biology Branch, Reproductive Toxicology Division, NHEERL, USEPA
- November 2004 - May 2005: Detail to Developmental Biology Branch, Reproductive Toxicology Division, NHEERL, USEPA
- May 1984 - November 2004: Biologist, Pulmonary Toxicology Branch, Experimental Toxicology Division, NHEERL, USEPA

Professional Societies

- North Carolina Society of Toxicology: 1984, 1994-2004

Selected Honors

- National Health and Environmental Effects Research Laboratory: Special Recognition Award - PM Research Team. Animal Toxicology (2003).
- US Environmental Protection Agency Certificate of Appreciation: 20 years of Federal Service (2004).
- Environmental Protection Agency Special Achievement Award: Recognition of High Quality Performance/ Recommendation for Monetary Award (1984, 1985, 1992, 1999, 2001, 2003).

Invited Lectures

- A talk and experimental demonstration of in-house built nose-only exposure recirculation system for experimental animals. The UpJohn Company, Kalamazoo, MI; November (1990).
- A talk and demonstration involving the use of the in-house built nasal lavage apparatus for experimental animals. Monsanto Agriculture, St. Louis, MO; February (1994).

Naomi Roberts

Education

- St. Petersburg Junior College, St. Petersburg, FL; Elementary Education, 1959-61.
- Memphis State University, Memphis, TN; 1981-84

Professional Experience

- 1995 – present Biological Laboratory Technician, Reproductive Toxicology Division, USEPA, RTP, NC
- 1989 - 1995 Senior Scientist, Reproductive Toxicology Branch, Man Tech Environmental Technology, Inc., RTP, NC
- 1986 – 1988 Senior Scientist, Reproductive Toxicology Branch, Northrup Environmental Services, RTP, NC
- 1984 – 1986 Research Associate, Department of Anatomy, Louisiana State University Med. Center, New Orleans, LA
- 1976 – 1984 Technician, Center for Electron Microscopy, Memphis State University, Memphis, TN
- 1975 – 1976 Technician, Zoology Department, Mississippi State University, Starkville, MS
- 1972 – 1973 Technician, Poultry Science Department, Mississippi State University, Starkville, MS

Selected Awards and Honors

- EPA Level I Award, 1997, “Demonstrating a Novel Sperm Protein (SP22) which Predicts the Fertility of Sperm.”
- EPA Level II Award, 2004, “Validation of a Sperm Biomarker for Fertility Assessments.”
- EPA Level II Award, 2005, “Localization of the Sperm Protein SP22 and Inhibition of Fertility In Vivo and In Vitro” and “Bromochloroacetic Acid Exerts Qualitative Effects on Rat Sperm: Implications for a Novel Biomarker.”

PUBLICATIONS

- Holmes M, Suarez JD, Roberts NL, Mole L, Murr AS, and Klinefelter GR. Dibromoacetic acid, a prevalent disinfection by-product of drinking water disinfection, compromises the synthesis of specific seminiferous tubule proteins following both in vivo and in vitro exposures, J. Androl. 22:878-890, 2001.
- Klinefelter, G.R., Welch, J.E., Perreault, S.D. Moore, H.D., Zucker, R.M., Suarez, J.D., Roberts, N.L., Bobseine, K., and Jeffay, S. Localization of the sperm protein SP22 and inhibition of fertility in vivo and in vitro. J. Androl., 23:48-63, 2002 (Cover Article).
- Klinefelter, GR, Strader, LF, Suarez JD, and Roberts NL. Bromochloroacetic acid exerts qualitative effects on rat sperm: implications for a novel biomarker, Tox. Sciences 68:164-173, 2002.
- Tarka-Leeds Dana K, Suarez Juan D, Roberts Naomi L, Rogers John M, Hardy Matthew P., and Klinefelter Gary R. Gestational Exposure to Ethane Dimethanesulfonate Permanently Alters Reproductive Competence in the CD-1 Mouse. Biol Reprod. 69:959-967, 2003.

Ellen H. Rogers

Education

- B.A., Coker College, Hartsville, SC; Biology-General Science, 1964.
- M.A., Vanderbilt University, Nashville, TN; General Biology, 1967.

Professional Experience

- 1975-Present: Biological Laboratory Technician/Research Biologist/Biologist. EPA.

Awards and Honors

- Scientific And Technological Achievement Awards, Levels II and III. 1983, 1986, 1987.

Selected Publications

Rogers EH, Zehr RD, Gage MI, Humpage AR, Falconer IR, Marr M, Chernoff N. 2007. The cyanobacterial toxin, cylindrospermopsin, induces fetal toxicity in the mouse after exposure late in gestation. *Toxicol.* 49:855-64. [Abstract](#)

Hunter ES, Blanton MR, Rogers EH, Mole M, Andrews JE, Chernoff N. 2006. Short-term exposures to dihaloacetic acids produce dysmorphogenesis in mouse conceptuses *in vitro*. *Reprod Toxicol.* 22:443-48. [Abstract](#)

Rogers EH, Hunter ES, Moser VC, Phillips PM, Herkovits J, Munoz L, Hall LL, Chernoff N. 2005. Potential developmental toxicity of anatoxin-a, a cyanobacterial toxin. *J Appl Toxicol.* 25:527-34. [Abstract](#)

Rogers EH, Hunter ES, Rosen MB, Rogers JM, Lau C, Hartig PC, Francis BM, Chernoff N. 2003. Lack of evidence for intergenerational reproductive effects due to prenatal and postnatal undernutrition in the female CD-1 mouse. *Reprod Toxicol.* 17:519-25. [Abstract](#)

John M. Rogers

Education

- B.S., University of Miami, Coral Gables, FL; Biology, 1976.
- M.S., University of Miami, Coral Gables, FL; Biology, 1979.
- Ph.D., University of Miami, Coral Gables, FL; Biology, 1982.

Professional Experience

- 1984-present: Research Biologist, EPA.
- 1991-present: Chief, Developmental Biology Branch, RTD, NHEERL, EPA.

Research Interests

Mechanisms of normal and abnormal development, maternal toxicity, maternal nutrition.

Professional Activities

- Editorial Board: Birth Defects Research Part B, Reproductive and Developmental Toxicology.
- Treasurer, Teratology Society. 1998-2004.
- Vice president elect (2002), vice president (2003), president (2004), past president (2005), Reproductive and Developmental Toxicology Specialty Section, Society of Toxicology. 2002-2005.
- Recipient, Lucille S. Hurley Award, 2005; Robert L. Brent Award, 2006.
- Member, Panel on Hydroxyurea, Center for the Evaluation of Risks to Human Reproduction. 2006.
- Co-chair, SOT Symposium, "Developmental Toxicology of the Lung," Society of Toxicology Annual Meeting. 2005.
- Co-chair, SOT Workshop, "Zebrafish – A Model Organism for Assessing Developmental Toxicity in Drug Discovery/Environmental Risk Assessment," Society of Toxicology Annual Meeting. 2004.
- Member, FASEB National Institutes of Health Federal Funding Committee (representing the Teratology Society). 2005-present.
- Member, EPA Pregnancy and Environmental Health Campaign, 2005-present.
- Member, Strategic Planning Committee, Teratology Society. 2002.
- Member, Panel on Methanol, Center for the Evaluation of Risks to Human Reproduction. 2000-2002.

Mitchell B. Rosen

Education

- B.S., University of Delaware, Newark, DE; Animal Science, 1977.
- M.S., North Carolina State University, Raleigh, NC; Animal Science, 1980.
- Ph.D., North Carolina State University, Raleigh, NC; Physiology, 2000.

Professional Experience

- 1982-1984: Research Technician III, Animal Science Department, North Carolina State University
- 1984-1995: Scientist, Man Tech Environmental Sciences, Inc., Contractor to EPA.
- 1995-present: Research Biologist, EPA.

Research Interests

- Genomic mechanisms of teratological effects of environmental chemicals.

Professional Activities

- Editorial Board: Reproductive Toxicology.
- Member, EPA Performance Based Quality Assurance Workgroup for Genomics Research. 2005.
- Member, Genomics Proteomics Committee, National Health and Environmental Effects Research Laboratory, EPA. 2005-2006.
- Participant, MicroArray Quality Control (MAQC) Project Test. 2005.
- Member, Toxicogenomics Core Advisory Group, National Health and Environmental Effects Research Laboratory, EPA. 2006-present.
- Member, Data Analysts Working Group, National Health and Environmental Effects Research Laboratory, EPA. 2007-present.

Invited Lectures/Symposia

- Toxicology Department, North Carolina State University, Raleigh, NC, invited seminar. 2001.
- Guest Lecturer, Cell and Developmental Biology 123, University of North Carolina, Chapel Hill, NC. 2003.

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Judith Schmid

Education

- B.S., University of Maryland at College Park; Biochemistry, 1985.
- B.S., University of Maryland at College Park, Animal Science, 1985.
- M.S., University of North Carolina at Chapel Hill, Biostatistics, 1990.

Professional Experience

- 1/01-present: Mathematical Statistician, RTD, NHEERL, EPA
- 1/95-1/01: Mathematical Statistician, BRSS, NHEERL, EPA
- 9/94-4/96: SAS Programmer, Rho, Inc., Chapel Hill, NC
- 8/93-12/94: Scientist, ManTech Environmental Technology, Inc., RTP, NC
- 12/92-8/93: Health Services Data Analyst, Blue Cross and Blue Shield of NC, Durham, NC
- 1/91-12/92: Associate Biostatistician, Pharmaceutical Product Development, Inc., Morrisville, NC
- 1/89-1/91: Research Assistant, Biostatistics, Biometric Consulting Laboratory, UNC-CH
- 9/86-8/87: Laboratory Technician, Entomology/Ecology, University of Maryland,
- 3/83-12/85: Dept. of Entomology
- 1/86-8/86: Chemist, National Cancer Institute, NIH, Bethesda, MD.

Selected Honors

- EPA Scientific and Technological Achievement Awards: 1999 Level II, 2002 Level III, 2003 Honorable Mention

Selected Publications

Abbott BD, Buckalew AR, DeVito MJ, Ross D, Bryant PL, Schmid JE. EGF and TGF-alpha expression influence the developmental toxicity of TCDD: dose response and AhR phenotype in EGF, TGF-alpha, and EGF + TGF-alpha knockout mice. *Toxicol Sci.* 2003 Jan;71(1):84-95.

Abbott BD, Lin TM, Rasmussen NT, Albrecht RM, Schmid JE, Peterson RE. Lack of expression of EGF and TGF-alpha in the fetal mouse alters formation of prostatic epithelial buds and influences the response to TCDD. *Toxicol Sci.* 2003 Dec;76(2):427-36. Epub 2003 Sep 26.

Andrews JE, Nichols HP, Schmid JE, Mole LM, Hunter ES 3rd, Klinefelter GR. Developmental toxicity of mixtures: the water disinfection by-products dichloro-, dibromo- and bromochloro acetic acid in rat embryo culture. *Reprod Toxicol.* 2004 Nov;19(1):111-6.

Jason Stanko

Education

- B.S., University of North Carolina at Chapel Hill, Chapel Hill, NC; Biochemistry, 1996.
- Ph.D., University of Alabama at Birmingham, Birmingham, AL; Toxicology, 2005.

Professional Experience

- 2006-Present: Biologist, EPA.

Awards and Honors

- National Science Foundation Fellow, 1999-2004.

Professional Societies

- Society of Toxicology
- Society of Environmental Toxicology and Chemistry

Selected Publications

Stanko JP, Angus RA. 2007. *In vivo* assessment of the capacity of androstenedione to masculinize female mosquitofish (*gambusia affinis*) exposed through dietary and static renewal methods. Environ Toxicol Chem. 26:920-6. [Abstract](#)

Enoch R, Stanko J, Greiner S, Youngblood G, Rayner J, Fenton SE. 2007. Mammary gland development as a sensitive end-point following acute prenatal exposure to a low dose atrazine metabolite mixture in female Long-Evans rats. Environ Health Perspect. 115:541-7. [Abstract](#)

Barton HA, Tang J, Sey YM, Stanko JP, Murrell RN, Rockett JC, Dix DJ. 2006. Metabolism of myclobutanil and triadimefon by human and rat cytochrome P450 enzymes and liver microsomes. Xenobiotica. 36:793-806. [Abstract](#)

Angus RA, Stanko J, Jenkins RL, Watson RD. 2005. Effects of 17-alpha-ethynylestradiol on sexual development of male western mosquitofish (*gambusia affinis*). Comp Biochem Physiol C Toxicol Pharmacol. 140:330-9. [Abstract](#)

Tammy Edwards Stoker

Education

- B.S., North Carolina State University, Raleigh, NC; Zoology, 1987.
- M.S., North Carolina State University, Raleigh, NC; Toxicology/Pharmacology, 1993.
- Ph.D., North Carolina State University, College of Veterinary Medicine; Pharmacology/Physiology, 1998.

Professional Experience

- 1988-1994: Senior Scientist, Man Tech Environmental Technology, Inc., Contractor to EPA.
- 1995-Present: Research Biologist, EPA.

Research Interests

- Environmental endocrine disruptors.
- Developmental endocrinology/toxicology.
- Toxicant-induced delayed ovulation.

Professional Activities

- Member, Mechanism of Action Technical Review Panel, Office of Pesticide Program's Risk Assessment Forum, 2006-present.
- Member, Two-generation retrospective analysis panel using ToxRef database, Office of Pesticide Programs, 2007-present.
- Chair, Effects of Endocrine Disrupting Chemicals on Puberty Session, Science to Achieve Results Grant Review, EPA. 2006.
- Member, Committee on Reproduction and the Environment, Society for the Study of Reproduction. 2006-present.
- Member, EPA Endocrine Disruptors Screening Program Team, assisting EPA Office of Science Coordination and Policy with Tier 1 screening efforts. 1999-present.
- Participant, Rat and Amphibian Thyroid Histopathology Workshop, Washington, D.C. 2005.
- EPA Bronze Medal. 2004.
- Reviewer, EPA Integrated Risk Information System review of tetra-, penta-, hexa-, and decabromodiphenyl ethers. 2004.
- Member, National Institute of Environmental Health Sciences/EPA Breast and Prostate Faculty Group. 1999-2003.
- Participant, International Sero Symposium on Pubertal Progression, Chicago, IL. 2003.

Lillian F. Strader

Education

- B.S., NC State University; Animal Science, 1997.

Professional Experience

- Oct. 1987 – present: Biologist, Reproductive Toxicology Division, USEPA, Research Triangle Park, NC
- Apr. 1979 – Oct. 1987: Scientist, Northrop Services, Inc., Research Triangle Park, NC
- Apr. 1978 – Mar. 1979: Physical Science Technician, National Marine Fisheries Service, NOAA, Pivers Island, NC
- Oct. 1974 – Mar. 1978: Biological Technician, USEPA, Research Triangle Park, NC

Selected Awards And Honors

- Scientific and Technological Achievement Award (STAA), Level II, 2004

Publications

Goetz AK, Ren H, Schmid JE, Blystone CR, Thillainadarajah I, Best DS, Nichols HP, Strader LF, Wolf DC, Narotsky MG, Rockett JC, Dix DJ. 2007. Disruption of testosterone homeostasis as a mode of action for the reproductive toxicity of triazole fungicides in the male rat. *Toxicol Sci.* 95:227-39. [Abstract](#)

Klinefelter GR, Strader LF, Suarez JD, Roberts NL, Goldman JM, Murr AS. 2004. Continuous exposure to dibromoacetic acid delays pubertal development and compromises sperm quality in the rat. *Toxicological Sciences* 81:419-29. [Abstract](#)

Klinefelter GR, Strader LF, Suarez JD, Roberts NL. 2002. Bromochloroacetic acid exerts qualitative effects on rat sperm: Implications for a novel biomarker. *Toxicol Sci.* 68:164-73. [Abstract](#)

Luben TJ, Olshan AF, Herring AH, Jeffay SC, Strader LF, Buus RM, Chan RL, Savitz DA, Singer PC, Weinberg HS, Perreault SD. 2007. The healthy men study: An evaluation of exposure to disinfection by-products in tap water and sperm quality. *Environ Health Perspect.* 115:1169-76. [Abstract](#)

Miki K, Qu W, Goulding EH, Willis WD, Bunch DO, Strader LF, Perreault SD, Eddy EM, O'Brien DA. 2004. Glyceraldehyde 3-phosphate dehydrogenase-s, a sperm-specific glycolytic enzyme, is required for sperm motility and male fertility. *Proc Natl Acad Sci U S A.* 101:16501-6. [Abstract](#)

Olshan AF, Perreault SD, Bradley L, Buus RM, Strader LF, Jeffay SC, Lansdell L, Savitz DA, Herring A. 2007. The healthy men study: Design and recruitment considerations for environmental epidemiologic studies in male reproductive health. *Fertil Steril.* 87:554-64. [Abstract](#)

Juan Suarez

Education

- B.S., Delaware Valley College, Doylestown, PA: Animal Science, 1985.

Professional Experience

- 1988-1995: Associate Scientist/Scientist, Man Tech Environmental Technology, Inc., Contractor to EPA.
- 1995-Present: Biologist, EPA.

Awards and Honors

- EPA Scientific and Technological Achievement Awards, 1992, 1994, 1997.

Selected Publications

Kaydos E, Suarez JD, Roberts NL, Bobseine KL, Zucker RM, Laskey JW, Klinefelter GR. 2004. Haloacid induced alterations in fertility and the sperm biomarker SP22 in the rat are additive: Validation of an ELISA. *Toxicol Sci.* 81:430-42. [Abstract](#)

Klinefelter GR, Strader LF, Suarez JD, Roberts NL, Goldman JM, Murr AS. 2004. Continuous exposure to dibromoacetic acid delays pubertal development and compromises sperm quality in the rat. *Toxicological Sciences* 81:419-29. [Abstract](#)

Tarka-Leeds DK, Suarez JD, Roberts NL, Rogers JM, Hardy MP, Klinefelter GR. 2003. Gestational exposure to ethane dimethanesulfonate permanently alters reproductive competence in the CD-1 mouse. *Biol Reprod.* 69:959-67. [Abstract](#)

Klinefelter GR, Strader LF, Suarez JD, Roberts NL. 2002. Bromochloroacetic acid exerts qualitative effects on rat sperm: Implications for a novel biomarker. *Toxicol Sci.* 68:164-73. [Abstract](#)

Klinefelter GR, Welch JE, Perreault SD, Moore HD, Zucker RM, Suarez JD, Roberts NL, Bobseine K, Jeffay S. 2002. Localization of the sperm protein SP-22 and inhibition of fertility *in vivo* and *in vitro*. *J Androl.* 23:48-63. [Abstract](#)

Stephen G. Thompson

Education

- B.A., King College, Bristol, TN; Economics & Business, 1987
- M.B.A., Virginia Polytechnic Institute and State University, Blacksburg, VA; Finance, 1989

Professional Experience

- 1988-1989: Graduate Teaching Assistant, Department of Finance, Virginia Polytechnic Institute and State University, VA
- 1989-1990: Instructor, Department of Marketing, College of Business and Economics, Radford University, Radford, VA
- 1990-1996: Management Analyst, Agreements and Grants Management Team, USDA-APHIS, Riverdale, MD
- 1996-1997: Supervisory Management Analyst, Chief of Agreements and Grants Management Team, USDA - APHIS, Riverdale, MD
- 1997-Present: Program Analyst, Environmental Carcinogenesis Division, NHEERL, RTP, NC (2007 Detail to Reproductive Toxicology Division)

Professional Activities

- Phi Kappa Phi
- Beta Gamma Sigma
- American Management Association
- National Grants Management Association

- Member, Risk Assessment Task Force, Society of Toxicology. 1999-2002.
- Reviewer, Final Study Report for National Toxicology Program, “Developmental toxicity evaluation for silver acetate administered by gavage to Sprague-Dawley (CD) rats on gestational days 6 through 19.” 2002.
- Advisor, postdoctoral and undergraduate students, 2003-present.
- Member, Risk Assessment Forum PPAR Committee, Project on PPAR-mediated Hepatocarcinogenesis in Rodents and Relevance for Human Health Risk Assessments, EPA. 2005-present.
- Member, National Health and Environmental Effects Research Laboratory Technical Qualifications Board, EPA. 2004-2007.
- Member, EPA Genomics Task Force Training Workgroup. 2004-present.
- Team Leader, Cell Signaling Effects Team (acting), RTD, National Health and Environmental Effects Research Laboratory, EPA. 2004-2005.
- Co-chair, Human Health Research Program Project on Harmonization of Cancer and Non-Cancer Risk Assessment: Disruption of Mitogen Activated Protein Kinase (MAPK) Signaling as a Common Mode of Action for Environmental Toxicants, National Health and Environmental Effects Research Laboratory, EPA. 2001-2004.
- Organizer and Chair, Workshop on “The National Children’s Study: Progress developing methods appropriate for assessing children’s exposure, biomarkers, and genetic susceptibility” at the Annual Meeting of the Society of Toxicology. 2004.

Invited Lectures/Symposia

- Symposium on Assessment of the Risk to the Progeny by Complex Environmental Chemicals, Japanese National Institute of Health and the Japanese Ministry of the Environment, Tokyo, Japan, 2 presentations: The Role of the epidermal growth factor receptor pathway in response to dioxin; and Receptor-mediated pathways regulating the response to dioxin: Insights from transgenic mouse models. 2003.
- Continuing Education Course on Signaling Pathways and Tissue Interactions in Organ-System Development, Teratology Society: Morphogenesis and Differentiation. 2004.
- Course on Vertebrate Development and Teratology, University of North Carolina, Chapel Hill, NC: Angiogenesis. 2005.
- Course on Environmental Toxicology, Duke University, Durham, NC: Principles of teratology and mechanistic research in developmental toxicology. 2003.
- Course on Developmental Toxicology and Teratology, University of North Carolina, Chapel Hill, NC: The receptor pathway regulating responses to dioxin: Links with signal transduction and vasculogenesis. 2003.

Selected Publications

Abbott BD, Wolf CJ, Schmid JE, Das K, Zehr R, Helfant L, Nakayama S, Lindstrom AB, Strynar MJ, Lau C. 2007. Perfluorooctanoic acid (PFOA)-induced developmental toxicity in the mouse is dependent on expression of peroxisome proliferator activated receptor-alpha (PPAR- α). *Toxicol Sci.* 98:571-581. [Abstract](#)

Wolf CJ, Fenton SE, Schmid JE, Calafat AM, Kuklenyik Z, Thibodeaux JR, Das K, White SS, Lau C, Abbott BD. 2007. Developmental toxicity of perfluorooctanoic

- B.A., Monmouth College, West Long Branch, NJ; Psychology, 1968.
- Ph.D., Rutgers University, Newark, NJ; Psychobiology, 1973.

Professional Experience

- 1984-present: Research Biologist, EPA.
- 1996-present: Chief, Endocrinology Branch, RTD, NHEERL, EPA.

Research Interests

- Toxicant induced changes in neuroendocrine control of reproductive function.
- Age-related changes in neuroendocrine function.

Professional Activities

- Adjunct Faculty: Dept. Psychology, Duke Univ. Med. Ctr., Durham, NC.; Div. Med. Psychology, Duke Univ. Med. Ctr., Durham, NC.; Dept. Anatomy, Physiol. Sci. and Radiol., N.C. State Univ., Coll. Vet. Med., Raleigh, NC.
- Co-chair, Expert Panel on Assessment of the F1-extended One-generation Reproductive Toxicity Test, Office of Pesticides Programs/Office of Science Communication and Policy/Office of Research and Development. 2006-present.
- EPA Bronze Medal, 2004.
- Co-chair, Life Stages Task Force of the Technical Committee on Agricultural Chemical Safety Assessment, International Life Sciences Institute/Health and Environment Sciences Institute. 2003-2006.
- EPA Representative, Interagency Working Group on Endocrine Disruptors, National Science and Technology Council, Committee on Environment and Natural Resources, Toxics and Risk Subcommittee. 2003-present.
- Steering Committee: Office of Research and Development Endocrine Disrupting Chemicals Multi-Year Plan. 2003-present.
- Chair, Committee for Developing the Framework for the National Health and Environmental Effects Research Laboratory's Research Implementation Plan for Endocrine Disruptors. 1999-present.

Invited Lectures/Symposia

- Office of Drinking Water briefing: Atrazine mechanisms and new research (steroidogenesis, Central Nervous System): Do we know everything we should know? 2006.
- Henry Stewart Conference on Current Thinking, Problems and Solutions in Reproductive, Developmental and Endocrine Toxicity Studies: Evaluating female reproductive toxicants. 2004.
- Office of Prevention, Pesticides, and Toxic Substances briefing: A proposed in vitro screen for ER/AR agonists and antagonists. 2004.
- National Health and Environmental Effects Research Laboratory, Human Health Science Review: Disruption of luteinizing hormone (LH) secretion as a common

- mode of action for altered fertility, reproductive diseases and cancer of the reproductive system. 2004.
- EPA Office of Research and Development, Endocrine Disrupting Chemicals Multi-year Plan Workshop: What effects are occurring in exposed human and wildlife populations? 2003.
 - International Life Sciences Institute/Health and Environmental Sciences Institute, Life Stages Task Force Meeting: Design and status of a Tier 1 for assessing reproductive, immunological and neurotoxicological effects. 2003.
 - International Serono Symposium Pubertal Progression Workshop: Evaluation and interpretation of pubertal endpoints in rodent models. 2003.
 - Office of Research and Development, Briefing for Assistant Administrator: Research highlights on endocrine disruptors within NHEERL. 2002.

Selected Publications

Stoker TE, Cooper RL. 2007. Distribution of ¹⁴C-atrazine following an acute lactational exposure in the Wistar rat. *Reprod Toxicol.* 8023:607-10. [Abstract](#)

Goldman JM, Murr AE, Buckalew AR, Ferrell JM, Cooper RL. 2007. Moderating influence of the drinking water disinfection by-product dibromoacetic acid on a dithiocarbamate-induced suppression of the luteinizing hormone surge in female rats. *Reprod Toxicol.* 23:541-9. [Abstract](#)

Goldman JM, Cooper RL, Murr AE. 2007. Reproductive functions and hypothalamic catecholamines in response to the soil fumigant metam sodium: Adaptations to extended exposures. *Neurotoxicol Teratol.* 29:368-76. [Abstract](#)

Goldman JM, Murr AE, Cooper RL. 2007. The rodent estrous cycle: Characterization of vaginal cytology and its utility in toxicological studies. *Birth Defects Res B Dev Reprod Toxicol.* 80:84-97. [Abstract](#)

Cooper RL, Laws SC, Das PC, Narotsky MG, Goldman JM, Tyrey EL, Stoker TE. 2007. Atrazine and reproductive function: Mode and mechanism of action studies. *Birth Defects Res B Dev Reprod Toxicol.* 80:98-112. [Abstract](#)

Cooper RL, Lamb JC, Barlow SM, Bentley K, Brady AM, Doerrer NG, Eisenbrandt DL, Fenner-Crisp PA, Hines RN, Irvine LF, Kimmel CA, Koeter H, Li AA, Makris SL, Sheets LP, Speijers G, Whitby KE. 2006. A tiered approach to life stages testing for agricultural chemical safety assessment. *Crit Rev Toxicol.* 36:69-98. [Abstract](#)

Laws SC, Yavanhxay S, Cooper RL, Eldridge JC. 2006. Nature of the binding interaction for 50 structurally diverse chemicals with rat estrogen receptors. *Toxicol Sci.* 94:46-56. [Abstract](#)

Stoker TE, Ferrell JM, Laws SC, Cooper RL, Buckalew AR. 2006. Evaluation of ammonium perchlorate in the endocrine disruptor screening and testing program's male pubertal protocol: Ability to detect effects of thyroid endpoints. *Toxicology.* 228:58-65. [Abstract](#)

Carmichael NG, Barton HA, Boobis AR, Cooper RL, Dellarco V, Doerr NG, Fenner-Crisp PA, Doe JE, Lamb IV JC, Pastoor, TB. 2006. Agricultural chemical safety assessment: A multisector approach to the modernization of human safety requirements. *Crit Rev Toxicol.* 36:1-7. [Abstract](#)

Laws SC, Stoker TE, Goldman JM, Wilson VS, Gray LE, Cooper RL. 2006. The U.S. EPA's Endocrine Disruptor Screening Program: *In vitro* and *in vivo* mammalian Tier I screening assays. In: *Developmental and Reproductive Toxicology, A Practical Approach*. Ed.: R. Hood, CRC Press, Boca Raton, FL.

Stoker TE, Perreault SD, Bremser K, Marshall RS, Murr AS, Cooper RL. 2005. Acute exposure to molinate alters neuroendocrine control of ovulation in the rat. *Toxicol Sci.* 84:38-48. [Abstract](#)

Stoker TE, Cooper RL, Lambright CS, Wilson VS, Furr JR, Gray LE. 2005. *In vivo* and *in vitro* anti-androgenic effects of DE-71, a commercial polybrominated diphenyl ether (PBDE) mixture. *Toxicol Appl Pharmacol.* 207:78-88. [Abstract](#)

Goldman JM, Laws SC, Cooper RL. 2004. Assessment of toxicant-induced alterations in ovarian steroidogenesis: A methodological overview. In: *Ovarian Toxicology*. Ed.: P. Hoyer, CRC Press, Boca Raton, FL.

Stoker TE, Laws SC, Crofton KM, Hedge JM, Ferrell JM, Cooper RL. 2004. Assessment of DE-71, a commercial polybrominated diphenyl ether (PBDE) mixture, in the EDSP male and female pubertal protocols. *Toxicol Sci.* 78:144-55. [Abstract](#)

Cooper RL, Laws SC, Narotsky MG, Goldman JM, Stoker TE. 2004. Hormonal control of ovarian function following chlorotriazine exposure: Effect on reproductive function and mammary gland tumor development. In: *Ovarian Toxicology*. Ed.: P. Hoyer, CRC Press, Boca Raton, FL.

Das PC, McElroy WK, Cooper RL. 2003. Potential mechanisms responsible for chlorotriazine-induced alterations in catecholamines in pheochromocytoma (pc12) cells. *Life Sci.* 73:3123-38. [Abstract](#)

Laws SC, Ferrell JM, Stoker TE, Cooper RL. 2003. Pubertal development in female Wistar rats following exposure to propazine and atrazine biotransformation by-products, diamino-s-chlorotriazine and hydroxyatrazine. *Toxicol Sci.* 76:190-200. [Abstract](#)

Stoker TE, Jeffay SC, Zucker RM, Cooper RL, Perreault SD. 2003. Abnormal fertilization is responsible for reduced fecundity following thiram-induced ovulatory delay in the rat. *Biol Reprod.* 68:2142-9. [Abstract](#)

Gray LE, Ostby J, Wilson V, Lambright C, Bobseine K, Hartig P, Hotchkiss A, Wolf C, Furr J, Price M, Parks L, Cooper RL, Stoker TE, Laws SC, Degitz SJ, Jensen KM, Kahl MD, Korte JJ, Makynen EA, Tietge JE, Ankley GT. 2002. Xenoendocrine disrupters-tiered screening and testing: Filling key data gaps. *Toxicology.* 181-182:371-82. [Abstract](#)

Stoker TE, Guidici DL, Laws SC, Cooper RL. 2002. The effects of atrazine metabolites on puberty and thyroid function in the male Wistar rat. Toxicol Sci. 6:198-206. [Abstract](#)